DOCUMENT RESUME

ED 268 760 EC 182 364

TITLE	Minnesota Guidelines for Gifted and Talented Education.
INSTITUTION	Minnesota Curriculum Services Center, White Bear Lake.; Minnesota State Dept. of Education, St. Paul.
PUB DATE	Jan 86
NOTE	161p.
PUB TYPE	Guides - Non-Classroom Use (055)
EDRS PRICE	MF01/PC07 Plus Postage.
DESCRIPTORS	*Curriculum Development; Elementary Secondary Education; *Gifted; *Program Development; Program Evaluation; Staff Development; *Talent; Talent Identification

ABSTRACT

The guidelines are intended to help districts design, implement, and evaluate educational programs for gifted and talented students in Minnesota. Educational components of a gifted education program plan are listed, followed by analysis of the following topics: development of a gifted education program plan (a two-stage process involving initial planning, implementation, evaluation, maintenance, refinement, and expansion of the program); school district personnel responsibilities (staff and non-staff responsibilities); staff development (classes/workshops, observations, resources); identification (definitions, criteria); program provisions (enrichment, acceleration, guidance); curriculum (illustrations of differentiated curricula); and evaluation. (CL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED268760

Minnesota Guidelines for Gifted and Talented Education

Minnesota Department of Education
January 1986

Guidelines Prepared Pursuant to Article 6, Section 24,

1985 Omnibus Education Aids Bill

B0748b
Minnesota Curriculum Services Center
3554 White Bear Ave., White Bear Lake, MN 55110

(612) 770-3943 800-652-9024 MCSC 1692
186700

EC182364

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Lorraine Hertz
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

The Minnesota Curriculum Services Center is supported by the State of Minnesota Department of Education and the State Board of Vocational Technical Education. The MCSC does not discriminate on the basis of race, color, creed, religion, sex, national origin, marital status, status with regard to public assistance or disability.

MINNESOTA CURRICULUM SERVICES CENTER
3554 White Bear Ave. White Bear Lake, MN 55110
(612) 770-3948 800-652-9024

MINNESOTA GUIDELINES FOR GIFTED AND TALENTED EDUCATION

The purpose of this document is to provide guidelines for designing, implementing and evaluating educational programs for students with outstanding abilities.

February 1, 1986
Minnesota Department of Education

TABLE OF CONTENTS

	PAGE
Introduction	1
Use of Guidelines	2
Essential Components of a Gifted Education Program	3
Section I. Developing A Gifted Education Program Plan	4
Section II. School District Personnel Responsibilities	15
Section III. Staff Development	19
Section IV. Identification	21
Section V. Program Provisions	27
Section VI. Curriculum	35
Section VII. Evaluation	44
Bibliography	48
Resource Information	59
Definition of Terms	60
Acknowledgements	62
Appendix	64

INTRODUCTION

A respect for excellence is the very heart of a civilized society. Universities, museums, libraries, sports arenas and theaters attest to America's devotion to the recognition of its finest works. It is the determined effort of every individual, committed to excellence and nurtured in a supportive and challenging environment, that will improve the quality of life for all citizens. This dedication to excellence must be recognized, nourished and reinforced in the public schools of this nation. It is our responsibility to allow and encourage each child to strive for the highest limits of his or her own personal excellence.

The outstanding abilities and unique talents of gifted and talented youth must be afforded opportunities for rapid growth and expansion. In the same way that a sports coach works to foster strengths and to discipline the abilities of young athletes, so must teachers foster, strengthen, and discipline the abilities of these students. Innate potential does not, in itself, guarantee success.

In some cases, gifted students fail to develop their exceptional abilities because they lack the encouragement to do so. Without assistance and enriching experiences, these students may not reach their potential but can instead become underachievers or behavioral problems. Continuing commitment to excellence in our society requires that we provide the unique opportunities that all students need to become the best of what they are capable of becoming.

The arts are a fundamental part of the education of all students. They provide students with means for expression and communication in their immediate and expanded environment. They help students recognize, discriminate and respond to images, sounds, movements, and spatial relationships while developing personal value systems. The arts enhance understanding between different cultures and provide identity to individuals within cultures. The arts sharpen senses while fostering innovative thinking and problem solving approaches to learning necessary in societies that value quality of life.

The notion of equality is the basis of our heritage. However, no two individuals are the same. True equality requires that there be equal respect and freedom for individual uniqueness and equal opportunity to develop unequal abilities to the fullest potential. Our obligation to the future requires a strengthened commitment to the concepts of excellence and equality in education.

USE OF THE GUIDELINES

These guidelines have been written to help districts develop gifted and talented programs tailored to the unique needs and resources of its school system and the needs of the students to be served. The purpose of the information included is to stimulate a search for components that fit together to form a program that is the most suitable for the school district. There is no single right combination for every district, but rather a right combination for the needs in each district.

The Minnesota State Advisory Council for the Gifted and Talented has identified seven essential components to be addressed in establishing a program for students with outstanding abilities. A separate section has been devoted to each of these major components.

ESSENTIAL COMPONENTS OF A GIFTED EDUCATION PROGRAM PLAN

1. The District Gifted Education Program Plan is developed by a broad-based task force. It includes the district definition and philosophy of education of students with outstanding abilities, assessment procedures, the goals of the program and the objectives needed to accomplish the goals.

2. Administrative responsibilities for the program are established to ensure the on-going active leadership that is required. School district personnel responsibilities are identified.

3. A program of staff development is planned in order to increase the total staff's ability to meet the needs of the students and the goals of the program.

4. Identification procedures are established in order to locate students whose abilities require a differentiated and challenging curriculum. Placement in the program provisions is a part of the identification procedures.

5. Program provisions are identified and/or developed. Program provisions (or options) are courses and activities which are designed to meet the academic, aesthetic, social and emotional needs of students with outstanding abilities.

6. Differentiated curriculum is developed and implemented (usually by the teachers of the specific provisions) for delivery through the various program options provided by the school district.

7. A program evaluation is designed and conducted on a regular basis ensuring that the district will make reasonable judgments about the effectiveness of all facets of the program and to determine aspects which need revision.

In developing a district program it is appropriate to review the state statutue that provides the current funding for gifted and talented education, and the state and national definitions of "gifted and talented."

1985 LEGISLATIONS PROVIDING FUNDING FOR GIFTED EDUCATION

Sec. 5. Minnesota Statutes 1984, section 124.247, subdivision 3, is amended to read:

Subd. 3. [AID.] A district which establishes a program for gifted and talented students shall receive for the purpose of this program an amount equal to $19.00 in the 1984-85 school year, times the number of gifted and talented students in the district. In the 1985-86 school year and later school years, a district shall receive the greater of $48 per gifted and talented student or $500 per district. No more than five percent of the students enrolled in the district shall be counted as gifted and talented for the purpose of aid computations pursuant to this subdivision. No more than five percent of the moneys received by a district pursuant to this subdivision may be expended for the purpose of administration of the program for gifted and talented students.

State and national definitions can be found on page 21.

SECTION I

DEVELOPING A GIFTED EDUCATION PROGRAM PLAN

Rationale: Students with outstanding abilities require modifications in their school program due to their unique needs as learners. The Gifted Education Program Plan is a ten-part description of the proposed program the district has designed to serve students with outstanding abilities.

Careful planning with precise attention to detail will result in a successful program. The Gifted Education Program Plan outlines a step by step process for a school district to develop, implement, evaluate and improve services for the education of students with outstanding abilities. The development of the Gifted Education Program Plan begins with the examination of the district's philosophy for the education of all students and recognizes that students with outstanding abilities have unique educational needs that cannot be fully accommodated without some modification in their curriculum.

Program planners must recognize that gifted and talented students have differences in their ability to think and learn as compared to other students. The difference is in the degree to which gifted students are capable of higher levels of learning at an earlier age, the unique ability to think conceptually using higher order processes and the ability to recognize and perform problem solving tasks. The selection or construction of program options must compliment the unique abilities of gifted and talented students.

It is also important for program planners to recognize that when the needs of gifted and talented students as learners and members of the school community are ignored, the gifted students may suffer a talent loss due to the absence of an enriching environment and may encounter serious difficulty in their social and emotional development.

The establishment and review of a program for gifted and talented students can be divided into two distinct stages.

Stage One includes:

A. Initial Program Planning
B. Implementation of the Program Plan
C. Evaluation of the Program

Stage Two includes:

A. Maintenance, Refinement of the Program
B. Expansion of Program

STAGE ONE

A. Checklist for Initial Program Planning

___1. Recognize the need for special programs for gifted and talented students.

___2. Establish a task force to be responsible for Stage One activities selected by school board. The task force may be composed of members of the administration (ideally, the superintendent and one principal from a high school, junior high school, and an elementary school); a teacher from each school in the district; a parent from each school; a counselor; a media specialist and one or two high school students or recent graduates.

___3. The task force develops a philosophy, goals and objectives for the program. (See appendix pp. 66-70)

___4. The task force develops a district definition(s) of gifted and talented students. (p.21)

___5. The task force conducts an assessment of current provisions. (See appendix, pp. 71-75)

___6. The task force studies the various types of program options. (See pp. 28-34)

___7. The task force surveys the current research (see the Minnesota Department of Education publication titled "Review of Research in Gifted Education, 1986").

___8. The task force visits existing, well-established programs.

___9. The task force uses the Fox Matrix (see appendix p. 125) to relate proposed existing program options to goals.

___10. The task force writes the Gifted Education Program Plan which follows with the following components:

a. District philosophy statement about the education of students with outstanding abilities.

b. Goals for the district program, K-12, with objectives for accomplishing the goals at the elementary, middle school/junior high and high school levels.

c. The name of the program coordinator for gifted and talented students.

d. Methods of identification based on the district definition of students with outstanding abilities.

e. A plan for the involvement of parents, community members, teachers and administration.

f. A description of options which will be offered at each grade level.

g. A staff development plan (design, schedule, arrangements).

h. A program evaluation design.

i. A budget

j. Date of local School Board approval.

___11. The Gifted Education Program Plan is submitted to the local school board for input and final approval.

B. Checklist for Implementation of the Program Plan

___1. Establish a district advisory committee for the education of students with outstanding abilities. This committee is usually composed of representatives of the same groups listed in the Stage One, A. Checklist for Initial Program Planning, and may be identical. Once a program coordinator has been identified, that person is to be a member.

___2. Provide appropriate information about the program to the staff and community.

___3. Provide staff development through workshops, program visits, conferences, etc.

___4. Provide curriculum writing time.

___5. Design evaluation plan and identify instruments to be offered.

___6. Identify appropriate students for each program.

___7. Provide information for parents of identified students.

___8. Implement the program as planned.

___9. Collect base line data to be used in evaluating the program.

C. Evaluate the Program

STAGE TWO

A. Checklist for Maintenance and Refinement of Program

___1. Analyze results of the evaluation.

___2. Determine areas of need for refinement of the program.

___3. Implement modifications as determined in two above, make additions and deletions.

___4. Continue with staff development activities.

___5. Continue to maintain and refine the program as needed.

___6. Conduct evaluation of program.

B. Checklist for Expansion of Program

___1. Analyze results of evaluation in A.6.

___2. If evaluation indicates need for expansion of program, use previously developed procedures to design and implement proposed expansion of program.

___3. Evaluate program and continue to maintain, refine, and expand program as needed.

GIFTED EDUCATION PROGRAM PLAN

_____ Date

I. School District Information

A. District Name and Number _____ _____

B. Address _____ Phone _____

C. Superintendent _____

D. School Board Members

1. _____ 5. _____
2. _____ 6. _____
3. _____ 7. _____
4. _____ 8. _____

E. Current School Population

Elementary Students _____ No. of Elementary Schools _____

Junior High or Middle School Students _____

Number of Junior High Schools _____

High School Students _____ No. of High Schools _____

F. Date of Local School Board Approval of Plan _____

G. Name of Program Coordinator _____

II. Program for Gifted and Talented Students

A. Task Force Members

	Name	Position	Address
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			

Task Force Meetings

Dates: _____

B. Philosophy Statement about the Education of Gifted Students: _____

_____

_____

_____

_____

_____

C. Goals and Objectives

1. Goal: _____

_____

Objectives:

a. _____

b. _____

c. _____

d. _____

2. Goal: _____

_____

Objectives:

a. _____

b. _____

c. _____

d. _____

3. Goal: _____

_____

Objectives:

a. _____

b. _____

c. _____

d. _____

4. Goal: _____

_____

Objectives:

a. _____

b. _____

c. _____

d. _____

D. Plans for Total Staff Orientation

	Date	Activity	Person Responsible
1.			
2.			
3.			

E. Plans for In-service Training for Staff

1. _____
2. _____
3. _____
4. _____

F. Plans for Parent Involvement

1. _____
2. _____
3. _____

G. Plans for Coordination with other Agencies, Organizations, etc.

1. _____
2. _____
3. _____
4. _____
5. _____

H. Plans for Evaluation of Program

1. _____
2. _____
3. _____
4. _____

5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

I. Program Provisions

Grade	Provisions	Implementation Date	Identification Criteria	Person Responsible	Budget ($ and time)
K	Current				
	1.				
	2.				
	3.				
	Proposed				
	1.				
	2.				
	3.				
I	Current				
	1.				
	2.				
	3.				
	Proposed				
	1.				
	2.				
	3.				
II	Current				
	1.				
	2.				
	3.				
	Proposed				
	1.				
	2.				
	3.				
III	Current				
	1.				
	2.				
	3.				
	Proposed				
	1.				
	2.				
	3.				
IV	Current				
	1.				
	2.				
	3.				
	Proposed				
	1.				
	2.				
	3.				

Grade	Provisions	Implementation Date	Identification Criteria	Person Responsible	Budget ($ and time)
V	Current				
	1.				
	2.				
	3.				
	Proposed				
	1.				
	2.				
	3.				
VI	Current				
	1.				
	2.				
	3.				
	Proposed				
	1.				
	2.				
	3.				
VII	Current				
	1.				
	2.				
	3.				
	Proposed				
	1.				
	2.				
	3.				
VIII	Current				
	1.				
	2.				
	3.				
	Proposed				
	1.				
	2.				
	3.				
IX	Current				
	1.				
	2.				
	3.				
	Proposed				
	1.				
	2.				
	3.				

Grade	Provisions	Implementation Date	Identification Criteria	Person Responsible	Budget ($ and time)
X	Current				
	1.				
	2.				
	3.				
	Proposed				
	1.				
	2.				
	3.				
XI	Current				
	1.				
	2.				
	3.				
	Proposed				
	1.				
	2.				
	3.				
XII	Current				
	1.				
	2.				
	3.				
	Proposed				
	1.				
	2.				
	3.				

SECTION II

SCHOOL DISTRICT PERSONNEL RESPONSIBILITIES

Rationale: The active leadership of the school district's administration and knowledgeable support of staff, parents and community are needed to ensure that a quality program is developed, implemented, evaluated and maintained. Personnel at several levels are crucial partners in carrying out the gifted and talented program. They must maintain that linkage and connection for the benefit of the students.

Those who are responsible for making the gifted educational program successful have responsibilites that reach beyond those needed in dealing with regular school program.

STAFF RESPONSIBILITIES

District Level Administrators should:

___ understand and be committed to meeting the needs of gifted and talented students.

___ provide leadership and the means for implementation of the program, including budgeting for adequate staff time.

___ act as an advocate for the gifted and talented program to all staff, with staff support and cooperation as the goal.

Building Principals should:

___ understand and be committed to meeting the special cognitive and affective needs of students with outstanding abilities.

___ support the program of staff development.

___ implement and maintain the program options recommended for his or her building.

___ provide appropriate scheduling, space and resources.

___ support teachers and the coordinator of the gifted and talented program.

___ act as an advocate to parents, staff and the community.

Gifted and Talented Program Coordinator should:
(The coordinator may be a teacher of gifted and talented students or a staff person with other responsibilites.)

___ understand the characteristics and learning and affective needs of gifted and talented students.

___ design and conduct appropriate identification procedures. Provide information to teachers, parents, and counselors for use in nominating students.

___ be responsible for coordinating implementation of the program.

___ monitor and report progress on implementation of the program.

___ participate in planning staff development activities.

___ support and assist teachers in the gifted and talented program and classroom teachers who have students with outstanding abilities in their classes.

___ act as an advocate for the program to parents, staff, administration and the community.

___ solicit nominations of students to be assessed for placement in the program from parents and peers of students.

Teachers of Students in District Provisions for Gifted and Talented Students should:

___ understand the characteristics and learning and affective needs of gifted and talented students.

___ help plan and participate in staff development activities.

___ modify or write specific curriculum for class or provision.

___ be an advocate for gifted and talented students and the program to parents and staff.

___ facilitate the differentiated curriculum in the assigned provision.

___ provide an environment which promotes student confidence and competence.

Classroom Teachers should:

___ understand the characteristics and learning and affective needs of gifted and talented students.

___ participate in staff development activities.

___ provide an environment which promotes student confidence and competence.

___ whenever feasible, modify the curriculum for students in the classroom who have outstanding abilities.

Counselors should:

___ understand the characteristics and learning and affective needs of gifted and talented students.

___ participate in staff development activities.

___ implement affective aspects of the gifted and talented program.

___ provide guidance for these students which will help them to make thoughtful long-range decisions about school and career choices.

___ assist teachers of gifted and talented students whenever appropriate.

NON-STAFF RESPONSIBILITIES

School Board Members should:

___ understand and be committed to meeting the needs of gifted and talented students.

___ support and encourage administrative and staff implementation of the program.

___ act as an advocate for the program to parents and to the community.

___ set policies regarding the education of gifted and talented students.

Parents should:

___ participate in the development of the District's gifted and talented program upon request.

___ be an advocate and support implementation of the program at the school board, administrative and staff levels.

___ support administration and staff responsible for implementation of the program.

___ be an advocate for the continuation and improvement of the program to insure that it meets the learning and affective needs of gifted and talented students.

___ assist in implementing the program where needed and appropriate.

___ be an advocate of the program to the community.

___ recommend their own children for possible placement in the district program.

Community Members should:

___ participate in planning and implementation of the gifted and talented program upon request.

___ assist in implementing the program by providing resources upon request (materials, expertise, experience).

___ support the program in appropriate ways.

SECTION III

STAFF DEVELOPMENT

Rationale: Successful staff development is based on the goals and objectives of the district program and increases the ability of the staff to meet the needs of the students and the goals of the program.

There are three stages in staff development:

I. **Awareness-provides general information on the education of students with outstanding abilities.**

II. **Implementation-provides specific information on the district program, curriculum, identification, etc.**

III. **Maintenance-provides necessary information to maintain, evaluate and improve the ongoing program.**

Staff development training is usually circular as new staff members are added in the district and as revisions and expansion of the program are made. Experience and observation indicate that it is extremely important for the following reasons:

1. Instructional planning and teaching about the needs of these students is a relatively new area of development.
2. College courses in gifted education, at both the undergraduate and graduate levels, are very limited in number.
3. State certification requirements for teachers and/or program coordinators in gifted education are not required at present.
4. Planning and implementing a program for the gifted and talented usually requires changes in attitude, knowledge and skills.
5. The education of gifted and talented students is not the exclusive domain of the program coordinator or the teacher of the gifted and talented. Rather, success results from the cooperative efforts of all individuals concerned with the education of gifted learners.

CHECKLIST OF ESSENTIAL COMPONENTS OF A STAFF DEVELOPMENT PROGRAM

___1. The program's being based on current research, such as studies described in the Minnesota Department of Education publication, "Review of Research in Gifted Education," 1985.

___2. The program's being a continuing process.

___3. The program's including immediate practical application.

___4. The program's being based on an assessment of staff needs.

___5. The program's including follow-up plans for further sessions.

___6. Time being provided, whenever possible, for inservice and implementation of staff development which meets the program objectives.

There are many activities which have proved to be effective means for serving the staff development needs are listed below:

CLASSES/WORKSHOPS

- Information meetings
- Working task forces
- Training sessions e.g., future problem solving, local district workshops, Omnibus, etc.
- National, state, regional, and local conferences and workshops
- College courses
- National Leaders: e.g., College Board Advanced Placement, Joseph Renzulli, Roger Taylor, George Betts, etc.

FIRSTHAND OBSERVATIONS/EXPERIENCES

- Program visitations
- Demonstration teaching
- Videotaped lessons and presentations
- Peer evaluation
- Formal and informal sessions with colleagues
- Team planning
- Personal goal setting

RESOURCES

- Books (see bibliography)
- Periodical literature
- Newsletters
- Database
- Professional organizations
- Educational Cooperative Service Units (ECSU)
- Minnesota Department of Education - gifted specialist
- Colleges and universities
- Fellowship programs
- Consultants
- Business community
- Colleagues
- Field professionals
- Publishers of curriculum (see Appendix, pp. 135-136)
- The Gifted Place (office of the Minnesota Council for the Gifted and Talented in Minneapolis, MCGT) 5701 Normandale Road, Box 81, Minneapolis, MN 54424 (612-473-1189)
- Minnesota Educators of the Gifted and Talented (1986 President, Diana Swanson), 998 Selby Avenue, St. Paul, MN 55104, (612-770-0351)

SECTION IV

IDENTIFICATION

Rationale: The purpose of identification is to locate those students whose abilities require a differentiated and challenging program. The identification process should be comprehensive and multidimensional and should include the collection of both objective and subjective data. The identification instruments and procedures should be carefully determined so that a broad spectrum of giftedness will be recognized.

CHECKLIST OF IDENTIFICATION PROCEDURE

___1. The district gifted education task force should develop a district definition of gifted and talented students.

The following definitions may prove helpful:

a. The state definition, adopted by the Minnesota State Board of Education in 1976 and reaffirmed by the Minnesota Advisory Council for the Gifted and Talented in 1985 states:

> Gifted and talented children are those who by virtue of outstanding abilities are capable of high performance. These are children whose potentialities can be realized through differentiated educational programs and/or services beyond those normally provided by the regular school program. Children capable of high performance include those with demonstrated achievement or potential ability in any of the following areas, singly or in combination: general intellectual ability, specific academic aptitude, creative or productive thinking, leadership ability, visual and performing arts.

b. The national definition, adopted in 1978, states:

> "Gifted and talented children" means children and, whenever applicable, youth, who are identified at the preschool, elementary, or secondary levels as possessing demonstrated or potential abilities that give evidence of high performance capability in areas such as intellectual, creative, specific academic, leadership ability, or in the performing and visual arts and who by reason thereof, require services or activities not ordinarily provided by the school.

___2. The program coordinator and district administration should appoint members of the identification committee. This committee could be made up of the program coordinator, teacher(s) of the gifted, regular classroom teacher(s), building principal(s), psychologist, counselor and any other persons deemed advisable such as a member of the community which will be offering a mentor program.

Identification committee should:

___3. review current research on identification.

___4. review the district philosophy, goals, objectives, and definitions pertaining to gifted and talented students to ensure that the identification procedures are based on these positions.

___5. develop policies for accepting transfer students; for programs for underachieving, learning disabled, emotionally disturbed and physically handicapped gifted students.

___6. develop policies and/or procedures for appeal of selection decisions and for exit procedures. Care should be taken in recommending that a youngster leave the program to ensure that both the student and the parents understand that the decision to withdraw from the program is in the student's best interest. If care is taken to explain the situation, most parents will reach the desired decision on their own. Decisions on the exit of students should be based on:

- teacher recommendations based on observation of student behavior, performance and products
- counselor recommendations based on interviews and observations
- parental requests for withdrawal from the program
- student requests for withdrawal from the program with parental permission

___7. design and implement the identification process under the direction of the program coordinator.

___8. select identification instruments and identification procedures which are appropriate for and consistent with the areas of giftedness to be served.

___9. select objective and subjective measures to screen and select students for the program options. Use caution in the use of report card grades as a criterion for selecting students because some students who excel in various areas receive poor grades throughout their school lives, thus, grades are not always indicative of their true abilities or potential.

___10. develop identification procedures which are clearly outlined and easily accessible to all concerned parties. An identification matrix may be developed for each option.

The following points should be considered when developing identification procedures:

a. It is essential that students be recommended on the basis of their past performance in a related subject for most program options. For example, successful achievement in French II is usually necessary before the student can master French III.

b. Many program options offered grades K-6 are not directly related to previous classes and require specific identification criteria. Districts which offer cluster classes in grades K-6 usually use the following criteria for placement in cluster classes:

1. Group intelligence test score (if available)
2. Reading achievement test score
3. Math achievement test score
4. Teacher recommendation form (district designed or commercially available such as the Adapted Renzulli scale, Bella Kranz Multi-dimensional Screening)

c. When the identification criteria is determined, the information can be organized and the selection criteria can be weighted, using a matrix. A sample cluster class Identification Matrix follows:

Cluster Class Identification Matrix

Student: James Jones Grade: 5

Criteria	95-99 percentile	90-94 percentile	85-89 percentile	80-84 percentile	50-79 percentile
Group Intelligence		X			
Reading Ach.	X				
Math Ach.			X		
Teacher Recommendation	Superior	V.Good	Good	Above Average	Average
	X				
Weights	5	4	3	2	1

Total Score: 17

d. If advanced or honors sections are offered in grades 7-9, the identification criteria should be specific for each course offered. Sixth grade teachers usually make the recommendations for placement in the 7th grade advanced sections. A comprehensive form to be used by schools offering enriched English and Math appears below. Before reviewing the form, the following notes should be considered:

1. Sample criteria for Advanced Mathematics

   * Intelligence test
   * Math Achievement test
   * Teacher Recommendation form

2. Sample criteria for Enriched English

   * Intelligence test
   * Reading Achievement composite
   * Language Arts Achievement composite
   * Teacher Recommendation form

Identification Matrix
For Advanced 7th Grade English and Math Classes

Student: Jack Jones Grade: 6

Criteria	95-99 percentile	90-94 percentile	85-89 percentile	80-84 percentile	50-79 percentile
Intelligence test score	X				
Math Achievement composite	X				
Reading Achievement composite			X		
Language Arts composite				X	

Scale	Superior	V. Good	Good	Above Average	Average
Teacher Rec. Form: English				X	
Teacher Rec. Form: Math	X				
Weights:	5	4	3	2	1

Total Scores: Advanced Math 15
Enriched English 12

e. Measures of student motivation are used when students participate in a resource class by leaving the regular class varying from one hour to a full day per week. Part-time resource classes are often offered for students with outstanding abilities. If the district decides to offer year long classes, the students can be selected through the sample cluster identification matrix.

f. Students may be recommended for participation in a resource class that focuses on independent study, student products, or a variety of subject areas. Students who desire to complete advanced work may participate in the program periodically. Thus, more students are selected for the pool of students who may participate in the resource class at certain times.

g. Students who participate in the Omnibus Program (consisting of 24 specific curriculum units) may be selected because of their advanced ability, keen interest in a topic, behavioral characteristics scales, and/or review of student work by subject area (e.g., art/music teachers).

A matrix may be completed for each gifted/talented student for inclusion in the talent pool, yielding a numerical ranking that may be used to decide which students may participate when the number of students is limited. See Omnibus identification materials in the appendix (pp. 105-109).

h. There are many program options which do not fit exactly into the identification systems described. Some program provisions are based on voluntary student participation, such as the Knowledge Bowl Program. Junior Great Books may be offered to all students in high reading groups and the enriched sections of English classes in grades 7-9. Teachers/ Coordinators of the gifted and talented may select students to participate in mentorships or pro-active counseling sessions.

i. The basic principle of identification is: how might we best locate students with outstanding abilities and provide opportunities in their educational program designed to meet their needs?

___11. provide staff development sessions on the characteristics of gifted and talented students and the district identification procedures which will be used.

___12. conduct a screening process to identify a pool of students who could be recommended for in-depth study leading to placement in the program options.
   a. Existing objective data such as group ability and/or achievement test scores should be examined.
   b. Subjective data from teachers through use of selected identification checklists such as the Renzulli Behavioural Characteristics or the Kranz Talent Identification Instrument should be examined (see the appendix pp. 92, 100-104).
   c. Additional nominations of students from teachers, parents, community members and/or students' peers, depending on the types of options which will be offered, should be solicited.

___13. assess students who have been identified through the screening process with the appropriate in-depth identification instruments. It is essential that parental permission be obtained before additional testing is done.

___14. provide parents or guardians with the results of this additional testing.

___15. compile student data from the in-depth assessment on an identification matrix or an identification student file.

___16. review each nominated student's file or matrix.

___17. select students to be recommended for placement in the options.

___18. inform parents or guardians of recommended students of identification results and obtain permission for students to participate in the option. Participation in any program offered for gifted and talented students is voluntary on the part of the students. School staff should be informed of students selected for the option(s). Staff members who teach students who are or are not recommended for placement should be informed about the testing results obtained from these students so that they can appropriately modify the curriculum for these children.

___19. provide, upon request, individual guidance and counseling on identification procedures and results to parents and students.

___20. conduct informational meetings for selected students and their parents.

___21. evaluate identification procedures. Were the students selected those who could benefit the most from the options being offered?

___22. revise, if necessary, identification procedures based on the findings from the evaluation of the identification process.

SECTION V

PROGRAM PROVISIONS

Rationale: Program provisions for students with outstanding abilities provide opportunities for these students to develop their unique abilities. Program provisions selected by the district cannot be expected to be in place at once. Care should be taken that the district program is sequential, carefully integrated, and articulated throughout the whole system.

Program provisions are of three different types based on their emphases:

ENRICHMENT

Enrichment describes experiences which are designed to be additional or supplemental to the established curriculum. These experiences are purposely planned to meet the needs, interests and capabilities of students with outstanding abilities.

ACCELERATION

Acceleration refers to administrative practices designed to allow students to progress through school grades or subjects at a rate faster than the average; e.g., early school entrance, content area acceleration, grade skipping, credit by examination, and early graduation.

GUIDANCE

Guidance refers to planned activities, sessions, and policies which are designed to address specific social/emotional and career needs of students with outstanding abilities.

There are many program provisions which do not fit neatly into any of these categories but are combinations that involve both enriching and accelerating extensions of the curriculum. The category is not important, but what is important is how well the program provision meets the needs of the students with outstanding abilities.

DESCRIPTIONS OF PROGRAM PROVISIONS

ELEMENTARY

Program Option	Contact Hours/Week	Grades	General Identification Methods	Instructor	Additional Cost	Curricular Emphasis
A. Self-contained class for G/T	26-30	1-6	Standardized aptitude and achievement tests, teacher recommendations, parent questionnaire, other methods specific to district.	A. Classroom teacher	Curriculum development teacher inservice training in gifted education	All academic subjects are differentiated.
B. Cluster Class	varies -- usually 20-15 hours/week of differentiated curriculum	K-6	Similar to A. above	Classroom teacher (usually one per grade)	Inservice training on a regular basis	Usually academic areas are differentiated.
C. Resource (pull-out) class	1-5	1-6	Standardized achievement tests, teacher recommendation, aptitude scores if available.	C. Part-time teacher or trained volunteer or full-time teacher who teaches many resource classes.	Inservice training, Teacher Salary, Volunteer Training, Instruct Materials, Curriculum writing time	Great variation in programs. Resource class may include district curriculum, Jr. Great Books, Future Problem Solving, Omnibus, etc.
D. Underachiever Gifted Class	1-2	2-6	Discrepancy between aptitude and achievement, teacher recommendation	Teacher of the gifted with training in underachievement	Teacher Salary	Guidance and enrichment
E. Early entrance to kindergarten	15	K	Aptitude scores, Social and Emotional Maturity	Regular kindergarten teacher	Cost of Testing	Not Applicable

ELEMENTARY

Program Option	Contact Hours/Week	Grades	General Identification Methods	Instructor	Additional Cost	Curricular Emphasis
F. University of Minnesota Talented Youth Math Program (also Mankato State University)	2	4-6	Math Test	Specially selected Math teacher	Testing and Tuition paid by student	1st Year: Algebra I, II 2nd Year: Geometry and Trigonometry
G. Summer school courses for students with outstanding abilities, many run by cooperating districts.	10-20/Wk. for 3-4 Wks.	2-6	Local district criteria for admission	District selects teachers	District-provided, tuition may be paid by students	A wide variety of courses offered.
H. Subject advancement	5-10	1-6	Achievement tests	Classroom teacher	No extra cost	Student studies reading or math in the appropriate group in the advanced grade
I. Continuous progress	Full-time	K-6	Achievement tests	Classroom teacher	No extra cost, inservice training for all staff	Students progress at their own rates, commensurate with their own ability levels

JUNIOR HIGH/MIDDLE SCHOOL

Program Option	Contact Hours/Week	Grades	General Identification Methods	Instructor	Additional Cost	Curricular Emphasis
A. Honors or enriched English sections	5	7,8, 9	Reading, language arts achievement scores, aptitude, teacher recommendations	English teacher	Inservice training, Curriculum writing time	Higher levels of thinking with advanced content
B. Accelerated Math sections	5	7,8, 9	Math achievement scores, aptitude, teacher recommendations	Math teacher	Inservice training, Curriculum writing time	Grade 7: Math 7,8 Grade 8: Algebra Grade 9: Geometry
C. Honors Social Studies sections	5	7,8, 9	Reading scores, social studies achievement scores, aptitude, teacher recommendations	Social Studies teacher	Inservice training, Curriculum writing time	Higher levels of thinking with advanced content, Future Problem Solving
D. Honors Science sections	5	7,8, 9	Science and math achievement and aptitude scores, teacher recommendations	Science teacher	Inservice training, Curriculum writing time	Higher levels of thinking with advanced science topics

JUNIOR HIGH/MIDDLE SCHOOL

Program Option	Contact Hours/Week	Grades	General Identification Methods	Instructor	Additional Cost	Curricular Emphasis
E. Pro-Active Counseling Program	1	7,8, 9	Aptitude and achievement scores, teacher recommendations	Counselor trained in gifted education or trained teacher of the gifted	Teacher/Counselor salary, instructional materials, Curriculum writing time	Career, social and emotional development experiences
F. Part-time Resource class	1-2	7,8, 9	Aptitude, Achievement scores, Teacher Recommendation, Self-nomination, Curriculum specific identification instruments	Part-time or Full-time gifted coordinator or teacher	Teacher salary	Great variation in program. Resource class may include: district designed curriculum, critical thinking, Future Problem Solving, independent study, etc.
G. University of Minnesota Talented Youth Math Program (also Mankato State University)	2	7,8, 9	Math test	Specially selected Math teacher	Tuition and testing paid by students	1st Year: Algebra I and II 2nd Year: Geometry Trigonometry 3rd Year: Calculus
H. Summer school classes for gifted students	2	7,8, 9	Local district criteria for admission	District and community staff members	Provided by district or paid by students	A variety of courses offered.
I. Autonomous Learner Model George Betts	Throughout the day	7,8, 9 (also K-6 and 10-12)	Self-selection	Total staff	Inservice training	All appropriate courses

HIGH SCHOOL

Program Option	Contact Hours/Week	Grades	General Identification Methods	Instructor	Additional Cost	Curricular Emphasis
A. Advanced classes in academic and fine arts areas	5	10-12	Self-selection and Teacher Recommendation	High school teachers	Instructional materials	Varies with course description
B. College Board Advanced Placement Courses (If enrollment is insufficient, individual students may take the test).	5	11-12	Self-selection and Teacher Recommendation	High school teachers with training in Advanced Placement Program	$48.00 for student test, Advanced Placement training for teacher	23 different academic courses
C. Mentorship Program conducted by the district or Educational Cooperative Service Unit	5-15	10-12 (may also offer in grades 4-9)	Teacher Recommendation	Community Members	Salary of mentorship coordinator	Student selected mentorship topics
D. Interdisciplinary Courses, e.g., Humanities, American Studies	5-10	10-12	Self-selection and/or Teacher Recommendation	High school teachers	Curriculum writing time	Interdisciplinary curriculum

Program Option	Contact Hours/Week	Grades	General Identification Methods	Instructor	Additional Cost	Curricular Emphasis
E. Pro-active Counseling Program	1	10-12	Aptitude test, Achievement scores, Teacher Recommendation	Counselor trained in gifted education or a trained teacher of the gifted	Teacher/Counselor salary, Instructional materials, Curriculum writing time	Career, social and emotional development experiences
F. Guided Independent Class (Class or individual students doing independent study projects)	5	10-12	Aptitude or Achievement tests, teacher recommendations	High school teacher trained in gifted education	Teacher salary, Curriculum writing time	Student selected topics
G. Part-time Resource class	1	10-12	Aptitude test or Achievement tests, teacher recommendations	Teacher/Coordinator of gifted education or high school teacher	Teacher salary	Future Problem Solving, Knowledge Bowl, Odyssey of the Mind
H. Summer school classes for the gifted offered by local, cooperating districts or colleges	15 hrs/ week for 3-5 weeks	10-12	Local district criteria for admission	Teachers, Community Members	$50-200 student tuition or provided by district	variety of courses offered

Program Option	Contact Hours/Week	Grades	General Identification Methods	Instructor	Additional Cost	Curricular Emphasis
I. Cooperative Programs (itinerant teacher, interactive cable)	1	10-12	Standard high school courses	Itenerant teacher or trained teacher for cable	High start-up costs for cable varies according to program	Standard high school courses
J. International Baccalaureate Program	2-4	10-12	Local district decision	High school teachers	International Baccalaureate materials, Extensive staff training, Approximately $20,000 first year costs	Theory of Knowledge and other courses
K. High School-College Placement Postsecondary Options Act	5-Full time	11-12	Self-selection	College instructors (High school teachers in some cases)	Tuition and books paid by the local district	A wide variety of courses offered for high school and college credit
L. Correspondence Courses	After School	11-12	Self-selection	College instructors	College tuition	Courses vary
M. Autonomous Learner	Throughout the day	10-12	Self-selection	School staff	Inservice training	Independent study

SECTION VI

CURRICULUM

Rationale: The educational needs of the gifted and talented are directly related to their learning characteristics. When planning curriculum, the advanced abilities, accomplishments, and interests of gifted and talented students require that the instructional content, the processes used to interact with the content, and the products which display the students' work be appropriately advanced. It has been said that the responses demanded from gifted students are what make a curriculum appropriate for them. How the curriculum is taught and what the student is required to do may be more important than the curriculum itself.

The program coordinator and district administrators should form a curriculum committee which is responsible for facilitating the steps below. Each teacher of the gifted will have primary responsibility for the curriculum for the specific option he or she teaches.

CHECKLIST FOR DEVELOPING A DIFFERENTIATED CURRICULUM

The curriculum committee should:

___1. review district statements regarding philosophy and the goals and objectives of educating gifted and talented students because the scope and sequence of the curriculum must be compatible with these purposes. With an emphasis on important content, advanced thinking strategies and independent investigations, gifted students should not become victims of "more of the same." That is, the curricular activities must be **qualitively different** from the regular curriculum.

___2. review literature on differentiated curriculum, learning theory and models, teaching strategies and curriculum modifications (See appendix, pp. 130-134).

___3. solicit ideas for curriculum from staff, parents and members of the community who have been or will be involved with the gifted and talented students. For example, if plans are being made to use the local chemical plant as a place where some students could serve mentorships, the mentors should be asked what skills are required as preparation.

___4. look beyond the school environment for community resources and agencies that can supplement and enrich the students' curricular experiences. The program should provide the freedom and flexibility that gifted students need to broaden their education. The curriculum committee should pursue learning experiences for the students outside the school environment if appropriate.

___5. establish a district policy about what district staff should do when students have demonstrated mastery of curriculum. For example, should a student who leaves the class on a regular basis: a. be required to make-up all he/she misses; b. make-up only that work which the teacher judges is not known by students; or none of the assigned work? Many districts find that if the student can demonstrate that he or she has mastered the concept, no further work is required.

___6. develop or adopt differentiated curricular models that contain the following essential elements:

a. **ACCELERATED RATE OF LEARNING** is appropriately paced curriculum that is responsive to the student's accelerated rate of learning and the need to be introduced to advanced content at an earlier age.
b. **CONTENT** is the subject matter of a differentiated curriculum that is supported by important themes and principles, merging the contributions of the disciplines to promote greater understanding and resulting in greater knowledge of self and others.
c. **PROCESS** is the method by which curriculum provides an opportunity to employ both critical and creative strategies to the resolution of real problems, the creation of models and schema to examine the environment and to produce new ideas. (The Albert Schweitzer Program is described in appendix p. 127.) Ashley Montague's definition of an educated person should be considered at this point: Educated people are those who are able to make life better for the world around them.
d. **DIVERSITY** requires an educational setting which supports variety in the gifted and talented students' learning and includes a rich selection of materials, varied learning experiences and the opportunity to make choices in their school learning.
e. **INTERACTION** is required to have a challenging and stimulating environment for children of similar abilities. Frequent contact with adult models in their areas of interest such as a mentor program is also important.
f. **INDEPENDENT STUDY** requires encouragement for the students to act as independent investigators.
g. **AFFECTIVE DEVELOPMENT** is stimulated when students receive a differentiated curriculum which includes many affective experiences (See Appendix pp. 128, 130).

___7. use the curriculum chart in the appendix p. 131, to decide which types of curriculum modifications will most successfully meet the needs of the specific student. The curriculum chart identifies some common learning characteristics of gifted and talented students and matches these characteristics with a listing of curricular modifications, additions or extensions. These involve the processes used to interact with the content, student products and the learning environment.

a. For example, a youngster with great sensitivity and empathy for others (#11 on chart) will benefit from a curriculum which includes a study of people in its content; open-endedness, freedom of choice, group interaction and a variety of process experiences; and learning environments that provide independence, openness, acceptance and complexity.
b. The X marks are merely suggestions. Each educator planning the curriculum plans should use his or her previous experiences and knowledge of the students being served to decide which aspects of the curriculum to emphasize in many ways.
c. There are many ways to use this chart. Perhaps a different chart can be completed for each specific option which will be offered. A simpler version could be developed for each youngster in the program. A chart with no Xs is also included in appendix, p. 132.

___8. decide on curriculum models, teaching strategies and student activities which will accomplish the program goals and objectives.

___9. use the following criteria when selecting or writing curriculum. The curriculum materials purchased or written should:
   a. support goals and objectives of the program.
   b. contribute to total educational experience of child.
   c. provide suggestions and guides for teachers and serve as a resource for basic background in specific content area.
   d. suggest a variety of ways materials may be used in the learning process.
   e. contain a variety of ways in which students can use materials effectively on their own, thus minimizing teacher's role as lecturer.
   f. provide students with multiple learning resources.
   g. motivate students and provide opportunity for exploration.
   h. emphasize interdisciplinary or multi-disciplinary approaches to learning.
   i. foster creative interaction between learner and material, learner and teacher, and/or learner and learner.
   j. allow open-ended learning experiences which appeal to a variety of learning styles and stimulate and enhance the student's aesthetic appreciation.
   k. provide opportunities for students to value real problems, thus becoming producers as well as consumers.

___10. locate commercial instructional materials within the district or order new materials.

___11. schedule time and provide resources for teachers of the gifted to work individually or together to develop or modify the curriculum if no appropriate materials are available. Whenever possible, it is advisable that teachers who are writing curriculum discuss their ideas with concerned classroom teachers.

___12. implement the differentiated curriculum.

___13. evaluate achievement of student objectives.

___14. develop new curriculum and/or refine scope and sequence of curriculum across grade levels.

___15. develop a K-12 scope and sequence for the curriculum modifications or additions in content, processes, or products which make the learning experience for students with outstanding abilities qualitively different.

ILLUSTRATIONS OF DIFFERENTIATION

Component/Definition	Content	
	Basic	Differentiated
I. Content		
A. Modifications		
1. Abstractness		
- Moving thoughts from the concrete to the general with broad applicability.	Describe whether or not we are doing a good job in choosing a president	Accepting that "Great men make history," analyze the implications this statement has for our choice of a president.
2. Complexity		
- Involves relationships between two or more concepts.	List the natural resources found in the United States.	Show how one's use of natural resources reflects one's want and level of technology.
3. Variety		
- Wide range of content; systematic sampling of many materials.	Study the parts of the body.	Compare characteristics of different species and create replacement parts.
4. Organization and Economy		
- Redefining content taught around central ideas and compressing or deleting what is mastered quickly or learned on their own.	Restate the supply and demand concept.	Evaluate the statement "Supply and demand for certain products leads to wage and standard of living difference for some workers, thus creating levels of social classes."
5. Study of People		
- How creative/productive individuals interact with others and function in society.	Read and summarize some important facts about the life of Thomas Jefferson.	Analyze the personal, social career (leadership style) characteristics of Thomas Jefferson and what effect they had on his major accomplishments.
6. Methods of Inquiry		
- Study of the methods of thinking used by scholars in various disciplines (math, science, philosophy).	List the components of Albert Einstein's Theory of Relativity.	Keeping in mind the basic concept of Einstein's theory of relativity, assess what advances in science today would not be possible without Einstein's theory.

ILLUSTRATIONS OF DIFFERENTIATION

Component/Definition	Process	
	Basic	Differentiated
II. Process/Method		
A. Modifications		
1. Higher-Level Thought	**Lower-Level Thought**	**Higher-Level Thought**
- Emphasis on the use of knowledge and more difficult mental activities.	Categorize the following musicians and the type of music they perform: John Denver, Eddie Van Halen, Scott Joplin, Ella Fizgerald.	Study the music and lyrics of the following musicians and evaluate what they tell about the musician's life and our modern day culture: John Denver, Eddie Van Halen, Irving Berlin, Ella Fitzgerald.
2. Open-Endedness	**Closed Questions**	**Open Question**
- The use of diverse and divergent questioning techniques and learning experiences.	Do you think excessive TV watching has an effect on children's behavior?	What effect do you feel excessive TV watching has on children's behavior?
3. Discovery		
- Seeing a number of items, patterns, and ideas and finding out why they fall into a particular category or relationship (inductive reasoning).		Students encouraged to form hypotheses and make informal guesses. Example: Figure out the pattern in this number series (2,6,14,26,42).
4. Proof/Reasoning		
- The stating of conclusions, the logic used in arriving at those conclusions.		Explain or cite evidence to support statements. Give reasons for an answer or opinion. Example: What, if any, effects do media predictions of campaign winners have on the outcome of the elections? Give reasons for your opinion.

	Teacher-Directed	Self-Directed
5. Freedom of Choice Allowing students flexibility to choose topics of study, methods to use and the environment in which to pursue them.	Teacher chooses options for students.	Learner controls choic[illegible] teacher is a facilitator, p[illegible] viding materials and resources.
6. Group Interaction Ability to relate to others effectively in a group setting.		Simulation activities in which individuals follow rules and interest with others. Self-analysis critiques of performance by others in groups. Example: "Lost on the Moon: A decision-making exercise" (Stanford & Stanford, 1969).
7. Pacing The rate information is presented in learning situation.		Quicken rate of instruction Condensing year-long course into a semester or less.
8. Variety Many types of procedures are used.		Logic games, simulations, committee work, role-playing, electronic media, discussions, learning centers, lectures, etc.

ILLUSTRATIONS OF DIFFERENTIATION

Component/Definition	Product	
	Basic	Differentiated
III. Product		
A. Modification		
1. Real Problems		
A situation or "mess" occurring in a school, home or community setting that needs resolution. Use Albert Schweitzer Program (Appendix, p. 127)	Teacher identifies the problem to be solved as a class.	Individual students identify problems in their community such as the wasting of food in the school cafeteria. Students work over a period of time implementing their own solutions to the problem.
2. Real Audiences		
An individual or groups of individuals who have a particular interest in a certain problem or situation.	Teacher leads the decision-making.	Students decide on the audience Students Principal Cafeteria workers Superintendent
3. Evaluation		
Judging products developed by students.	Teacher provides assessment instrument and does most of the evaluation.	Students design assessment instruments. Assessment by teacher and student using pre-established criteria Self-evaluation by student Assessment by the real audience.
4. Transformation		
Changes of known information (changes in meaning, use, interpretation, mood significance).		Elements of transformation viewing from a different perspective Reinterpreting Elaborating Extending Combining

COMPONENTS AND ILLUSTRATIONS OF DIFFERENTIATION

Component/Definition	Learning Environments	
	Basic	Differentiated
IV. Learning Environment		
A. Modifications		
1. Student-Centered	**Teacher Centered**	**Student Centered**
Major focus of the classroom is on the students' ideas and interests.	High portion of class time spent on teacher's informing or lecturing.	High portion of class time spent on discussion in which the students do most of the talking.
2. Encourages Independence	**Dependence**	**Independence**
Tolerance for and encouragement of student initiative.	Little tolerance or encouragement for student choices.	Student's choice on what to learn, how to learn, and how to evaluate Classroom management Social interaction Planning of class activities.
3. Openness	**Closed**	**Open**
A physical setting or situation that permits new people, new materials and new ideas.	Restrictions on topics, materials and products to be developed.	Permits new ideas Exploratory discussions Freedom to change direction or procedures to meet different situations Focus on divergence
4. Accepting	**Judging**	**Accepting**
Avoiding value judgements; attempting to understand.	Tendency to evaluate student ideas on basis of teacher's standards and values.	Keep things open and fluid Listen actively to students Defer judgment until all data is collected.

Component/Definition	Basic	Differentiated
5. Complex Environment which includes a variety of materials, colors, arrangements and types of spaces for learning.	**Simple** Tables Chairs Desks Books	**Complex** Variety of reference books, maps, periodicals Tables for work areas Comfortable seating for discussions, seminars Study carrels for specialized equipment Calculators, typewriters, computers, video equipment. Learning Centers
6. High Mobility Movement in and out of the classroom and access to variety of learning/investigating environments.	**Low Mobility** Conduct biology experiments in the classroom.	**High Mobility** Study with a mentor or scholar in a biology laboratory or out-of-doors.

SECTION VII

EVALUATION

Rationale: An evaluation plan is essential for every program for gifted and talented students. Evaluation is necessary in order to make reasonable judgments about the effectiveness of various planning committees, identification procedures, curriculum designs, teaching strategies, administrative arrangements, and other facets of the program. It is also important to evaluate in order to demonstrate accountability for the cost-effectiveness of the funds put into the program for the gifted.

CHECKLIST FOR DESIGNING AND CONDUCTING A PROGRAM EVALUATION

The program evaluation design should:

___1. be developed during the time that the program is being planned. However, if the program is in operation and no evaluation has been included, efforts must be made to adopt evaluation instruments and procedures which relate to the original goals of the program.

___2. be related to the goals and objectives of the program. The main purpose of an evaluation is to determine the extent to which program goals, objectives and activities are being achieved, and their impact on student progress (see appendix Section VII).

___3. focus on 1) student progress and 2) program operation.

___4. be comprehensive, using several techniques and methodologies of assessment. If the evaluation design has been developed during the planning phase of the program, both formative and summative techniques should be included. Summative evaluation (such as pre- or post-test information) is important to assess overall student progress and program operation because it shows the progress from the beginning to the end of a program. In many ways formative evaluation is more important because it is an ongoing evaluation which ensures continuous assessment of both students' progress and program operation. This allows changes and modifications to be made as needed without waiting until the end of the program. In fact, gifted programs are not meant to end at any specific time, but to become a permanent part of the school program.

___5. identify the person who will be responsible for conducting the evaluation. This person should be directly responsible for monitoring the gathering of data. In most cases, the program coordinator is responsible for the evaluation. However, large districts usually have evaluation departments and those departments also evaluate the program for the gifted. If the budget allows, an outside evaluator or agency is highly recommended. The Minnesota Department of Education conducts Gifted Education Program Reviews on a limited basis. Contact the Program Specialist in Gifted Education for information.

___6. determine the scope and size of the evaluation. It should be large enough to obtain sufficient data so that informed decisions can be made on how to modify the use of staff and resources to reach the program goals and objectives.

___7. identify methods and instruments to be used in the evaluation; modified, or written.

___8. describe how data which measures student progress will be collected. It is essential that data be collected before the program is initiated so that comparisons can be made between pre- and post-test results to determine growth.

___9. specify the types of evaluation instruments which can be used to measure student progress (see appendix for samples). Possible evaluation instruments are as follows:

- standardized achievement tests
- standardized student aptitude tests
- student questionnaires
- reports on individual conferences
- standardized creativity tests
- teacher rating scales
- report card grades
- student project evaluations
- follow-up questionnaires sent to high school graduates
- awards or honors received by students
- informal written comments from teachers or mentors
- parent questionnaires
- any other appropriate measure

___10. specify data which measures the effectiveness of the program operation.

The evaluation should provide a continuous flow of information about the effectiveness of the program. This enables program personnel to make mid-course corrections and provide for program improvement.

To obtain the data necessary to document the support of the activities conducted for each objective, the consumers should evaluate the effectiveness of the activities. This may mean that evaluation questions are addressed to administrators, teachers, district staff, parents, mentors, students, community persons.

Evaluation of program effectiveness requires techniques which provide documentation that activities are being implemented as originally planned according to the program goals and objectives.

___11. list the kinds of information which can be used to measure the effectiveness of the program. Possible kinds of information are as follows:

- Dates of staff orientation meetings, number and/or names of personnel attending, topics covered, interests expressed or other records/minutes/agenda of orientation meetings.

- Materials, supplies or equipment purchased.
- Records of needs assessments taken to determine staff concerns.
- Records of inservice sessions and evaluation of results.
- Checklists of dates and program activities performed.
- Measurement of changes in perception of program by staff, students, parents and others.
- Measurement of students' learning and/or development

___12. determine which of the following key evaluation elements should be included in the final report:

a. description of the district program
   1. schools involved and total student population
   2. number of students in the program
   3. descriptions of each available program option

b. progress of students in the program
   1. results of pre- and post-tests
   2. student evaluations of the program
   3. parent evaluation of student progress and program
   4. program coordinator evaluation of student progress
   5. assessments or observations of other school personnel
   6. effectiveness of identification procedures used

c. effectiveness of Program Operation
   1. carry-over of activities and projects into regular classroom situation and effect on other students, as seen by classroom teacher
   2. applicability of specific activities in programs for the gifted to regular student participation, according to classroom teachers
   3. evaluation by district administrators (superintendent, building principals, psychologist, counselors)
   4. evaluations by Program Coordinators and teachers of the gifted
      a. identification of strengths and weaknesses of overall program
      b. recommendations for change

d. total faculty perception of program pertaining to the strengths and weaknesses of program and the relationship and cooperation of classroom teachers with gifted program personnel

e. evaluations by classroom teachers who have students involved in a pull-out option including:
   1. changes in behavior or study habits of pull-out student in classroom
   2. value of time taken out of classroom situation
   3. overall assessment of the value of program
   4. recommended policy for make-up of work missed
   5. conflicts between regular program and pull-out program
   6. recommendations for change

f. parent and community involvement
   1. statements of opportunity for parent involvement and results of efforts in that area
   2. resources, businesses, agencies or organizations used in programs for the gifted
   3. parent and community persons' perceptions of overall program
   4. parent observations of changes in behavior or study habits of the student
   5. parent evaluation of policy for make-up of work missed

g. budget report including
   1. income - state funds, district funds, block grants and other funds
   2. expenditures - salaries, travel, staff development, conferences, materials, etc.

___13. provide answers to the following questions:
   a. Was the program initiated according to the district's original plan? Were timelines followed and responsibilties carried out? Was an advisory committee established and used on a continuous basis?
   b. Were the students identified and placed as established in the plan?
   c. Were the goals and objectives met?
   d. Were activities, resources and options provided as originally planned?
   e. Was there coordination with the total school program?
   f. Was the staff development plan carried out?
   g. Were the staff development activities found to be successful?
   h. What other agencies, organizations, resources, etc. were involved in the program?
   i. What has been the involvement of the parents?
   j. How can program strengths be reinforced?
   k. What actions is needed to modify weaknesses in the program?

___14. provide plans for a final evaluation report (see appendix p. 138). It should include recommendations for refinement and/or expansion of the program based on the results of the evaluation.

___15. include the procedure for presentation of the report to the school board for consideration and action on the recommendations.

BIBLIOGRAPHY ON THE EDUCATION OF GIFTED AND TALENTED STUDENTS, 1985

Acknowledgements to Betty Johnson, Minnesota Council for the Gifted and Talented, and Ella Mae Gogel, Des Moines, Iowa, National Parent Committee of the National Association for the Gifted.

Abraham, Willard. Common Sense About Gifted Children. New York: Harper and Brothers, 1958.

An easily read book which, in keeping with its title, reflects much common sense about gifted children and their education. Included also are many reports of research and proven effective practices.

Alexander, Patricia A. and Muia, Joseph A. Gifted Education, A Comprehensive Roadmap. Gaithersburg, Maryland: Aspen Press, 1981. $26.75

Alvino, James. Parents' Guide to Raising a Gifted Child: Recognizing and Developing Your Child's Potential. Little, Brown & Co., 1984.

A comprehensive and readable, practical sourcebook for raising and educating gifted children. Everything from tips on books, games, and special programs to identifcation of enhancing creativity, intelligence, and leadership abilities.

Barbe, Walter B. Psychology and Education of the Gifted: Selected Readings. New York: Appleton-Century Crofts, 1965.

This selection of readings from L. M. Terman, Margaret Mead, Sidney Pressey, Ruth Strang, Paul Witty, Walter Barbe, James B. Conant, and dozens more, on the psychology and education of the gifted, includes philosophical presentations, discussions of particular points of view, reviews of literature on specific topics, and significant research reports. This book covers almost every facet of the problem of dealing with gifted children.

Baskin, Barbara H. and Harris, Karen H. Books for the Gifted Child. Ann Arbor: R. R. Bowker Co., 1980.

Berger, Gilda. The Gifted and Talented. Franklin Watts (An Impact Book), 1980.

A brief (eighty-seven pages), readable overview with many references to successful gifted adults. There are checklists for students, parents, and teachers. Gives a taste for more; will lead parents to deeper reading.

Brumbaugh, Florence N. and Bernard, Roshco. Your Gifted Child. New York: Henry Holt and Company, Inc., 1958.

An easily read book written especially for parents who wish to help their child realize his full potential in an atmosphere of understanding and love. Such vital questions as the following are discussed: Should I teach my child to read? Should my child be sent to nursery school? and How can I induce my child to study?

Canfield, Jack and Wells, Harold C. 100 Ways to Enhance Self-Concept in the Classroom: A Handbook for Teachers and Parents. Prentice-Hall, Inc., 1976.

Although directed toward teachers, these valuable exercises can be easily adapted to parents to develop positive self-concepts in their children. Communication, thinking skills, and self-awareness are stressed.

Clark, Barbara. Growing Up Gifted. Charles E. Merrill Publishing, 2nd edition, 1984.

A comprehensive work. Parents will find chapters on "Becoming Gifted," "Growing Up Gifted," "Creativity," and "Areas of Concern in Gifted Education" of special interest. A six-page section, "Teachers of the Gifted--At Home: Parents" is excellent. A final chapter on brain research, biofeedback and parapsychology, etc., is of interest.

Clendening, Corrine P. and Davies, Ruth Ann. Creating Programs for the Gifted. Bowker Co., 1980.

Coffey, et al. Parentspeak on Gifted and Talented Children. Ventura County Schools (535 East Main Street, Ventura, CA 93009), 1976. Parent authors write about a variety of concerns to parents of gifted: meeting educational needs, legislative action, parenting the gifted, and forming parent support groups.

Cutts, Norma E., and Moseley, Nicholas. Bright Children, A Guide for Parents. New York: Putnam Sons, 1953.

This book is primarily written for parents but may also prove a valuable aid to teachers working with parents of gifted children. The author's discussion on the gifted child in the home and school and the relationship between the two is very good. Suggested guides for identification and guidance for both parents and the school are given.

_____. Teaching the Bright and Gifted. Englewood Cliffs: Prentice-Hall, Inc., 1957.

An enjoyable and easily read book covering every aspect of the gifted child. Emphasis is placed on ways of identifying the child, his needs, various school programs, mental hygiene, guidance, and the underachiever.

DeHaan, Robert F., and Havinghurst, R. J. Educating Gifted Children. Chicago: University of Chicago Press, 1957.

DeHaan and Havinghurst discuss the philosophical aims of education for the gifted and the educational implications resulting from these aims. Identification, the administrative aspects of an education program for the gifted children, various ways of meeting the needs of the child, creativity and special talents, community factors and resources in the education of gifted children, and the extremely gifted child are other important topics discussed in the above book. This book should prove especially valuable to teachers and administrators.

Delp, Jeanne and Martinson, Ruth. The Gifted and Talented: A Handbook for Parents. (Available from Ventura County Superintendent of Schools, County Office Building, Ventura, CA 93001--Book No. 6), 1975.

A very basic, practical handbook that answers questions commonly asked by parents.

Drews, Elizabeth M. The Creative Intellectual Style in Gifted Adolescents. East Lansing, Michigan: College of Education, Michigan State University, 1964.

Durr, William K. The Gifted Student. New York: Oxford University Press, 1964.

There is an excellent review of this book on the jacket of the book itself. One must agree with it. Throughout the book the emphasis is on specific suggestions for educational techniques and school programs that enable the gifted student to fully develop his abilities. Administrators, guidance workers, and parents will also find suggestions to help them carry out their own responsibilities for the full development of the gifted.

Ehrlich, Virginia Z. Gifted Children: A Guide for Parents and Teachers. Prentice-Hall, 1982.

Defines the numerous roles and responsibilities parents have as educators of their gifted children. Sensitive, positive, reassuring. Paperback. Dr. Ehrlich served as the consultant for St. Paul's NOVA program (Hill Magnet Program).

Elkind, D. The Hurried Child. Addison-Wesley, 1981.

Especially important book for parents of gifted children.

Feldman, Ruth Duskin. Whatever Happened to the Quiz Kids: Perils and Profits of Growing Up Gifted. Chicago Review Press, 1982.

A Quiz Kid herself in the forties, the author interviewed eighty-five of her peers and describes their experiences then and since. General information about giftedness is also included.

Felker, Roberta M. A Parent's Guide to the Education of Preschool Gifted Children. Council of State Directors of Programs for the Gifted and National Association of State Board of Education, 1982.

Eight authors discuss the label, identification, choosing programs, the meaning of the information age, and emerging issues as they relate to the preschool child. Excellent resources lists for parents.

Freehill, Maurice F. Gifted Children, Their Psychology and Education. New York: Macmillan Company, 1961.

This book discusses such topics as the justification of educational programs for gifted children, factors affecting programs, characteristics, identification procedures, administrative arrangements, curriculum in several academic areas, and methodology as related to curriculum experiences. Teachers, administrators, counselors and parents should find the book helpful.

French, Joseph (Editor). Educating the Gifted. New York: Henry Holt and Company, 1959.

This is an easily read book and offers one a comprehensive survey of the literature in the area of the gifted. Such topics as acceleration, evaluation, and research are discussed.

Galbrath, Judy. The Gifted Kids Survival Guide. Free Spirit Publishing Co., Minneapolis, March, 1984.

Three hundred gifted teenagers contributed to this practical book about and for gifted students. Interspersed with quotes, it provides positive ideas, assurances, and an honest look at parents, friends, and self. Parents and children will refer often to the inventories and ego-boosting suggestions.

Gallagher, James J. Teaching the Gifted Child. Third Edition, Allyn & Bacon, Inc., 1985. Parents should be familiar with this well-known classic in order to build and reinforce their parenting and advocacy skills. Case studies help illustrate the teaching theories.

This is an enjoyable and easily read book covering every aspect of the gifted child: the high IQ child, the high creative child, and the gifted underachiever. Emphasis is placed on ways of identifying the child, his needs, various school programs, mental hygiene, guidance, and the underachiever. The book includes two chapters on pedagogy: one discovery and inquiry methods, the other on productive thinking. It contains a wealth of practical suggestions and means to guide and stimulate the fullest creative thinking of the gifted child. It is highly recommended to anyone concerned with this problem - teachers, administrators, parents, or general public.

_____, Kaplan, Sandra and Sato, Irving. Promoting the Education of the Gifted/Talents: Strategies for Advocacy. National/State Leadership Training Institute for the Gifted and Talented (316 West Second Street, Suite PH-C, Los Angeles, CA 90012), 1983.

Nine chapters by as many authors describe aspects of advocacy in the home, school, community, the educational agency, universities, and at the state and national levels. This valuable guidebook for advocacy in the home, school, community, the educational agency, universities, and at the state and national levels. This valuable guidebook for advocacy groups provides legislative lists, charts, and model plans.

Gardner, Howard. Frames of Mind: The Theory of Multiple Intelligences. Basic Books, Inc. New York, 1983.

Gardner, a Mac Arthur Prize Fellow, has written a signficant book on various types of intelligence: linguistic, musical, logical-mathematics, spatial, bodily-kinesthetic and personal.

Getzels, Jacob W., Jackson, Phillip W. Creativity and Intelligence. New York: New York, John Wiley and Sons, Inc., 1962.

A large portion of this book is devoted to a comparison of children who are high in creativity but not as high in IQ; with children who are high in IQ but not as high in creativity. The book presents a systematic inquiry into higher creative ability and its relationship to high intelligence.

Ginsberg, Gina and Harrison, Charles H. How to Help Your Gifted Child: A Handbook for Parents and Teachers. Monarch, 1977.

A useful book for parents who plan to form a support group or develop programming for gifted children. Based on author's experiences with the Gifted Child Society's Saturday and summer workshops.

Goertzel, Victor and Mildred. Cradles of Eminence. Little, Brown and Company, 1962. A fascinating and revealing study of childhood of over 400 well-known twentieth-century men and women. Shares interesting anecdotes about the development of creativity.

A superb book because it analyzes significant characteristics found in families of extremely gifted children.

Goldberg, Miriam L., Passow, A. Harry, and Justman, Joseph. The Effects of Ability Grouping. New York: Teachers College Press, 1966.

This study of the effects of ability grouping reports the findings of a well conducted study of grouping for instructional purposes. It deserves the serious attention of all educators, regardless of their view on ability grouping.

Gowan, John C. and others, eds. Creativity; its Educational Implications. Wiley, 1967.

A collection of articles providing an introductory overview of creativity. The editors' intent was "to point out directions that educators must take in order to discover, foster, and restore creative potential in children."

Gowan, John C., Khatena, Joe, and Torrance, E. Paul. Educating the Ablest. F. E. Peacock Publishers, Inc., 1979.

Readings from the Gifted Child Quarterly on the subjects of history, developmental characteristics, program, curriculum, guidance, identification and evaluation, teachers and teacher training, parents, creativity, disadvantaged gifted youth, women, imagery and the right cerebral hemisphere, and new horizons.

Grost, Audrey. Genius in Residence. Prentice-Hall, 1970.

An honest, remarkably objective account of the author's highly gifted son and the response of the family. Lifestyle changes, coping mechanisms, and relationships with school and professional personnel are described.

Hall, Eleanor G. and Skinner, Nancy. Somewhere to Turn: Strategies for Parents of the Gifted and Talented. Teachers College Press, Columbia University, 1980.

This booklet (sixty pages) has identification checklists, parenting suggestions, advocacy methods, where to find funds, and several parents' success stories. An appendix describes Bloom's learning theory; its classroom use.

Henry, Nelson B., (Editor). Education for the Gifted. Chicago: University of Chicago Press, 1958.

This book is Part II of the Fifty-Seventh Yearbook of the National Society for the Study of Education. It is a compilation of selections written by many well-known authorities in the field of education and the gifted child. Topics of concern to educators of the gifted are discussed in a scholarly manner.

Hildreth, Gertrude H. Educating Gifted Children at Hunter College Elementary School. New York: Harper and Brothers, 1952.

A report of the work done at an internationally known school for gifted students. Hildreth discusses such topics as organization, objectives, curriculum, school life at Hunter, guidance and adjustment of the gifted child, preparation of teachers, and follow-up studies of the achievement, skills, and attitudes of the gifted child.

Hirsch, Sharlene P. Young Gifted and Handicapped. Executive High School Internships Program. U.S. Office of Education.

Describes a program which included many handicapped children.

Hollingsworth, Leta. Children Above 180 IQ. Yonkers, New York: World Book Co., 1942.

This book is a classic study of historical figures who exhibited great intelligence.

Kanager, Herbert. Everyday Enrichment for Gifted Children at Home and School. Ventura County Superintendent of Schools, Ventura, CA 92001.

Lots of suggested activities to do at home.

Kaufman, Felice. Your Gifted Child and You. Council for Exceptional Children (1920 Association Drive, Reston, VA 22091), 1976.

A readable, helpful book written especially for parents. Many case histories and examples illustrate common concerns. A strong emphasis on creativity.

Khatena, Joe. The Creatively Gifted Child: Suggestions for Parents & Teachers. Vantage Press, 1978.

A small, sensitive book that describes methods of testing and encouraging the creatively gifted child. It includes enough of the very practical to justify the technical.

Krueger, Mark. On Being Gifted. Walker and Company, 1978.

Twenty students write of the people who helped, the pressures, school programs, career options, and how to become change agents. Many insights and much advice for parents.

Laycock, Samuel. Gifted Children. New York: Scott, Foresman and Co., 1979.

A practical classroom guide on ways to improve the quality of education which gifted children are receiving for both elementary and high school teachers. Paperback. Includes historical perspectives.

Martinson, Ruth A. Curriculum Enrichment for the Gifted in the Primary Grade. Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1988.

Practical ideas and philosophy.

Maker, June A. Curriculum Development for the Gifted. Rockville, Maryland: Aspen Press, 1981.

_____. Providing Programs for the Gifted Handicapped. Rockville, Maryland: Aspen Press, 1977.

_____. Teaching Models in Eduation of the Gifted. Rockville, Maryland: Aspen Press, 1982.

Maryland, S. P., Jr. Education of the Gifted and Talented Volumes I and II. Report to the Congress by the U.S. Commissioner of Education. Washington, D.C.: Department of Health, Education and Welfare, 1971.

Miller, Bernard and Price, Merle, editors. The Gifted Child, The Family and The Community. Walker and Co., 1981. Fifty-three essays and poems.

Minnesota Department of Education. Minnesota Guidelines for Educating Gifted and Talented Students. Minnesota Department of Education, 663 Capitol Square, St. Paul, Minnesota 55101. 1985.

_____. Handbook for Teachers and Coordinators of Gifted Programs. Minnesota Department of Education, 663 Capitol Square Building, St. Paul, Minnesota 55101. 1982.

Mitchell, Patricia Bruce, Editor. An Advocate's Guide to Building Support for Gifted and Talented Education. National Association of State Board of Education (444 North Capitol Street, N.W., Washington, D.C. 20001), 1981.

Six chapters by six authors describe parent power and an effective advocacy process for long-lasting change. A brief (sixty pages), sophisticated handbook.

Mooney, Ross L. and Razik, T. A., Editors. Explorations In Creativity. Harper, 1967.

A selection from more than 4200 sources of the best papers of the most dynamic theoreticians and researchers in the creativity field which have hitherto been available only in professional journals. The distinguished contributors represent such fields as genetics, psychology, child development, art, anthropology, and education.

Moore, Linda Perigo. Does This Mean My Kid's a Genius? McGraw-Hill Book Co., 1981. A delightful, funny and helpful book. A thorough treatment of giftedness; will be read cover to cover, then you'll want to move next door to the author.

Myers, Garry C., and Myers, C.E.C. How to Help Your Child Succeed in School. Columbus, Ohio, Highlights for Children, Inc., 1953.

Passow, A. Harry, Editor. The Gifted and the Talented: Their Education and Development. The 78th Yearbook of the National Society for the Study of Education. University of Chicago Press, 1979.

Includes perspectives, educational policies, programs and practices for the gifted and talented, a series of papers by authorities in the field.

Perrino, Sheila and Joseph. Parenting the Gifted: Developing the Promise. Bowker Co., 1981. A useful primer on both theoretical and practical concerns pertaining to actual day-to-day parenting. Interesting for interwoven examples and case studies.

Perrone, Phillip A. and Male, Robert. The Developmental Education and Guidance of Talented Learners. Rockville, Maryland: Aspen Publications, 1981.

Problems and Isues in Contemporary Education. Scott, Foresman and Co., 1968.

Articles from the Harvard Educational Review and the Teachers College Record on problems of curriculum; learning and thinking; educational technology; problems of teacher performance; the school as a social institution; educational policy and human values. Included are articles against programmed instruction and a comprehensive report on teaching of creativity. Vernon's article on individual differences stresses the need for reduction in heterogeneity. Any grouping should be based on some characteristic which: 1, Is stable and enduring; 2, Can be accurately assessed;, 3, Has a major influence on educational progress; 4, Is acceptable to society. An important article is "Managing the "Post Partum" Depression in Creative Individuals." Another is a report of a teachers' institute at San Fernando State College.

Raph, Jane Beasley; Goldberg, Miriam; and Passow, A. Harry. Bright Underachievers. New York Teachers College Press, 1966.

Problems; review of literature. Provisions for the gifted at Evanston Township and DeWitt Clinton in New York City are thoroughly discussed. Appendices include many tables. The philosophy is helpful for parents of underachievers.

Renzulli, Joseph S. The Enrichment Triad Model. The Creative Learning Press, Inc. (P.O. Box 320, Mansfield Center, CT 06250), 1977. Describes the qualitatively different education for the gifted and the three steps of awareness, process, and product. Technical in spots, but definitely worth the effort.

_____. A Guidebook for Evaluating Programs for the Gifted and Talented. NSLTI, Ventura County Superintendent of Schools, Ventura, CA, 1975.

Reynolds, Maynard C. Early Admission for Mentally Advanced Children. Washington, D.C.: The Council for Exceptional Children, NEA, 1962.

This publication discusses the pros and cons of early admission to school for gifted children. Included in the bulletin are reports on several early admission programs and a review of research in the area.

Rice, Joseph P. The Gifted - Developing Total Talent. Charles C. Thomas: Springfield, Illinois, 1970.

Rice gives appropriate recognition to the multiplicity of talent and the need for looking beyond high IQ to identify giftedness. Academic talent thus becomes only one of several areas of potentiality to be fostered in the schools. Rice's classification of talent include also creative talent, manipulative skills, and the mechanical-technical-industrial complex of skills.

Rice distinguishes between potential and manifest talent. Giftedness represents potentiality only -- productive behavior must be developed. Too often educators have assumed that those with sufficient endowment will automatically achieve. Many school programs lack any differential programs for developing high level talent. This point of view that giftedness signifies potentiality puts discovery of talent in its proper perspective -- as a starting point. Development of giftedness needs more emphasis in school programs than identification of the gifted.

Rice's discussions on classification and identification of talent provide useful frameworks upon which practical programs for gifted can be developed. Drawing upon results of attempts to provide for gifted in California, the author includes some development in this area. His work also includes up-to-date theoretical models with suggestions for implementation and suggestions as to how these can be applied to curriculum development for gifted. Maslow's self-actualization concept is discussed as an appropriate goal for talent development. The research of Bloom and of Bruner are shown to have particular relevance to curriculum models for the gifted.

The Gifted - Developing Total Talent is comprehensive. As the author himself points out it is "pedagogical in tone." It is primarily aimed at educators including trainees and practitioners in teaching, guidance, and administration.

Roedell, Wendy Conklin, Jackson, Nancy, and Robinson, Halberg B. Gifted Young Children. Columbia Teachers: College Press, 1980.

Explores nature of giftedness, the physical, social, emotional and cognitive characteristics of young gifted children, reviews literature on what is known about intellectual abilities and social development of gifted preschool and primary-grade children. Includes information about identification and educational programs for these children.

Sellin, Donald F. and Birch, Jack W. Educating Gifted and Talented Learners. Gaithersburg, Maryland: Aspen Press, 1980.

_____. Psychoeducational Development of Gifted and Talented Learners. Gaithersburg, Maryland: Aspen Press, 1981.

Stanley, Julian C., George William, and Solano, Cecilia, editors. The Gifted and the Creative: A Fifty-Year Perspective. Johns Hopkins University Press, 1977. Series of papers including topics such as the gifted child movement, studies at Johns Hopkins University, approaches to creativity, and a panel discussion.

Strang, Ruth. Helping Your Gifted Child. New York: E. P. Dutton, 1960.

An easily read book covering such topics as the gifted as a preschooler; as an elementary school and as an adolescent. The role of the parent in the education of gifted children is also discussed. This is an excellent book for parents.

Tannenbaum, Abraham J. Adolescent Attitudes Toward Academic Brilliance. New York: Bureau of Publications, Teachers College, Columbia University, 1962.

This book might impress someone as a "doctoral dissertation" of Tannenbaum - very "wordy." However, with a more careful reading of it, one finds that Dr. Tannenbaum has given a stimulus to the study of the effect which mental superiority has on the social status of its possessor.

_____. Reaching Out: Advocacy for the Gifted and Talented. Teachers College Press, Columbia University (1234 Amsterdam Ave., New York, NY 10027), 1980.

A how-to booklet (thirty-seven pages) giving basic organizational steps to a strong advocacy group; includes sample development materials, bylaws, etc.

Taylor, Calvin W. Creativity: Progress and Potential. New York, NY: McGraw-Hill Book Co., Inc., 1964.

Terman, Lewis M., and Oden, Melita. The Gifted Child Grows Up. Genetic Studies of Genius, Vol. IV, Stanford: Stanford University, 1947.

An analysis of the educational vocational histories and general adjustment of over 1,000 subjects. This book is a follow-up of the major research done in the area of the gifted child.

_____. The Gifted Group at Mid-Life. Genetic Studies of Genius, Vol V. Stanford University.

Vail, Patricia. The World of the Gifted Child. Walker and Company, 1979, Penguin, 1980.

A practical, warm book with many case histories that describe the gifted and their needs. Presents many activity suggestions for the gifted and their parents.

Webb, James, Meckstroth, Elizabeth, and Tolan, Stephanie. Guiding the Gifted Child. Ohio Psychology Publishing Co. (5 East Long Street, Suite 610, Columbus, OH 43215), 1982.

Practical advice is provided to parents in the areas of motivation, discipline, stress management, depression, sharing feelings, and peer and sibling problems. Parents will recognize a caring friend and will refer to this guide regularly. An excellent book for counselors and teachers of gifted children.

Whitmore, Joanne Rand. Giftedness, Conflict and Underachievement. Allyn & Bacon, Inc., 1980.

Parents will find chapters on understanding the vulnerability of the gifted child and the reasons for underachievement. A final chapter on "Conclusions and Recommendations" is very useful for the parent advocate. Is an excellent resource for teachers.

_____ and Maker, C. June. Intellectual Giftedness in Disabled Persons. Aspen Publication. Rockville, Maryland, 1985.

Williams, Frank E. A Total Creativity Program for Individualizing and Humanizing the Learning Process (includes creating identification). Educational Technology Publications, 140 Sylvan Avenue, Englewood Cliffs, NJ 07632. $59.95.

Resource Information

A. Publishers of Instructional Materials for Students with Outstanding Abilities

The Analogy, 4040 University, Suite B Des Moines, Iowa 50311 (515-255-1585) "Selected Resources for the Talented, Creative and Gifted."

Creative Learning for the Gifted and Talented, 936 C Street, San Diego, CA 92101. "TransTech."

Creative Publications, 3977 East Bayshore Road, P.O. Box 10328, Palo Alto, CA 94303 (415-968-3977). "Computer Products - 1984 Spring Catalog."

D.O.K. Publishers, P.O. Box 357, East Aurora, New York 14052. "Something for every classroom." (716-652-9131)

Educat 84, P.O. Box 2158, Berkeley, CA 94702 (415-548-2324)

Foxtail Press, P.O. Box 2996, La Habra, CA 90632-2996 (714-522-3922). "Grow Intellectually."

Good Apple, Box 299, Carthage, IL 62321.

Interact, P.O. Box 997 D, Lakeside, CA 92040, (619-448-1474). 1985-86 Catalog.

Midwest Publications, P.O. Box 448, Pacific Grove, CA 93950.

A.W. Peller & Associates, Inc. Educational Materials, 249 Goffle Road, Hawthorne, NJ 07507 (201-423-4666) "Bright Ideas for the Gifted and Talented"

Resources for the Gifted, P.O. Box 15050, Phoenix, Arizona 85060. "Focus on Intellectual Growth."

Opportunities for Learning Inc, 8950 Lurline Avenue, Dept. WT, Chatsworth, CA 91311, (818-341-2535). "Gifted, Spring 1984."

Zephyr Press, 430 South Essex Lane, Tucson, AZ 85711, "Reaching their Highest Potential."

B. Specific Resources

Advanced Placement Program CN 6670, New Jersey 08541-6670.

Omnibus Program - contact L. Hertz, 553 Capitol Square, St. Paul, MN 55101 (612-296-4072) for information during 1985-86. Commercially printed units will be available after fall of 1986 for approximately $600.

DEFINITION OF TERMS

The following definitions related to gifted and talented education are used in these guidelines:

Administrators - school district staff members who serve as superintendents, building principals, assistant principals, etc.

Classroom teachers - those who work directly with students in the regular school program. They may or may not have gifted and talented students in their classes.

Cluster teachers - elementary and secondary teachers who modify the curriculum for small groups of identified gifted students in their classroom.

Compact the Curriculum - by condensing certain sections so that students spend less time on material they have already mastered.

Creative or Productive Thinking Ability - the characteristic possessed by students with advanced innovative or creative reasoning power, problem solving ability and/or original thought.

Differentiated Curriculum - a curriculum that is different from the standard curriculum in one or more ways: content, thinking process, products or learning environments. It provides the opportunity for the gifted and talented student to think and create at advanced levels.

General Intellectual Ability - a characteristic possessed by students with superior intelligence, who manifest potential or demonstrated achievement in several fields of study, and who have the ability to perform complex mental tasks as identified by professionally qualified persons.

Leadership Ability - refers to those students who have been observed to be "natural" leaders: those who are looked on by their peers as being leaders; those who have demonstrated leadership through such activities as student government and those who have demonstrated leadership in non-academic or academic activities.

Mentorships - educational experiences wherein a student works directly with an expert to learn about a specific subject or explore a career.

Program Coordinator - a staff person who works either part-time or full-time as the director of the program for gifted and talented students. The program coordinator may act as chairperson of the gifted advisory committee, conduct the identification procedures, design and present staff development sessions, teach class, conduct the evaluation, etc.

Program for the gifted and talented - a term which includes all aspects of the services provided by the school district for identified gifted and talented students.

Program Options - the specific classes, courses or administrative policies (such as early entrance to kindergarten, etc.) which are provided for gifted and talented students. As the term implies, students may choose whether or not they wish to participate in the specific program options.

Specific Academic Aptitude or Ability - those students who possess superior ability or potential in a specific course of study such as science, mathematics, language arts, etc.

Staff - all professional and non-professional persons employed by a school district.

Teacher of the Gifted - the teacher who has one or more classes composed of gifted and talented students. A resource teacher of the gifted usually works with students who are "pulled-out" of their regular classroom for special instruction on a regularly scheduled basis, whereas most secondary teachers of students with outstanding abilities usually teach an enriched or advanced class in a specific subject. These teachers fulfill many varied functions such as: develop options and alternatives with regular teachers, arrange and help develop individual study; link up gifted students with community resources and bring resources into school, etc.

Visual and Performing Arts - those students who have demonstrated or indicated, through affective as well as cognitive performance, outstanding ability in areas such as art, music, drama or speech.

Acknowledgements

Minnesota Guidelines for the Education of Gifted and Talented Students is a result of dedicated work accomplished by the following experts in gifted education:

Dr. John Bowden, director of library services
Southwest State University, Marshall*

Dr. Donna Jean Carter, superintendent
Robbinsdale School District*

Karen Chapek, teacher of gifted students
St. Louis Park*

Barbara Christensen, coordinator of gifted education
North St. Paul School District

Shirley Christenson, director media and gifted
Anoka-Hennepin School District

Jeanne Eisenbarth, coordinator of gifted education
Rochester School District*

Amy Filice, legislative chair
Minnesota Council for the Gifted and Talented*

Zarm Geisenhoff, teacher
St. Paul School District

Dr. Thomas Greenspon, psychologist,
Minneapolis*

Diane Heacox, coordinator of gifted education
Edina School District, Minnesota Educators of the Gifted and Talented*

Lorraine Hertz, program specialist in gifted education
Minnesota Department of Education*

Dr. Peggy House, University of Minnesota
Minneapolis*

Sr. Donna Innes, director of curriculum
St. Paul-Minneapolis Archdiocese*

Betty Johnson, director
West Suburban Summer School for the Gifted*

Dr. William Jones, Greater Twin Cities Youth Symphony
Minneapolis*

Craig Kay, principal
Dassel-Cokato School District*

Peggy Kelly, teacher-coordinator of gifted education
Walls School District*

Herb Kessler, curriculum director
Brainerd School District*

Christine Maefsky, high-potential teacher
Minneapolis School District

Ross McGlasson, Excelsior*

Willard Niemi, assistant superintendent
St. Louis County School District*

Mary Oberg, coordinator for gifted and talented
Minneapolis*

Joan Peters
Golden Valley*

Dorothy Rippie, school board member
White Bear Lake School District

Karen Rogers, Omnibus author
University of Minnesota and St. Thomas College

Dale Rusch, curriculum director
Minnetonka School District

Dorothy Salesses, teacher
St. Paul-Minneapolis Archdiocese

Jacqulyn Saunders, coordinator of gifted education
Spring Lake Park School District

Connie Skeldum, coordinator of gifted
Hastings School District

Linda Silrum, director of gifted education
Metro Educational Cooperative Service Unit*

Sarah Smith, specialist in gifted services
St. Paul School District

Carole Snyder, language arts and gifted coordinator
St. Paul School District*

Diana Swanson, curriculum director
Hill Magnet Program, St. Paul School District

Lucie Taylor, president
Minnesota Council for the Gifted and Talented*

Dr. Jerry Wellick, St. Cloud State University*

Idella Ziegler, Minnesota School Board Association
Buffalo*

*Members of the Minnesota State Advisory Council for the Gifted, 1985-1986.

APPENDIX

Table of Contents

	PAGE
Section I. Developing a Gifted Program Plan	
Sample Philosophy Statements	66
Sample Objectives	68
Sample Goals	69
Worksheet Assessing Current and Program Options	71
Sample Gifted Education Program Plan Smalltown, Minnesota	76
Section II. School District Personnel Responsibilities	
Worksheet for Determining Responsibilities	83
Section III. Staff Development	
Staff Development Topics	84
Section IV. Identification	
Interrelations of Characteristics, Needs and Problems among Gifted/Talented Persons	86
Descriptions of Commonly-Used Standardized Identification Instruments	87
Information about Handicapped Gifted Learners	93
Information about Selection of Students for Program in Visual and Performing Arts	94
Directions for Use of Identification Matrix Worksheet	96
Worksheet for Selecting Students	98
Selection Criteria for Specific Units	99
Teacher Checklist for Gifted and Talented (four sets of Characteristics)	100
Renzulli Indentification Form (ten sets of characteristics)	101
Selection Criteria for Omnibus Units	105
Worksheet for Selecting Students (ten characteristics)	110
Sample Visual Arts Identification Checklist	111
Sample Identification Checklists for Creative Writing, Drama, and Dance	112
Sample Mechanical Characteristics Checklist	113
Sample Scientific Creativity Characteristics Checklist	114
Sample Creative Writing Charactersitics Checklist	115
Hill Gifted/Talented Magnet School Pupil Identification Forms	116
Sample Parent Identification Checklist	122
Sample Teacher Identification Checklist (K-1)	123
Sample Teacher Identification Checklist (2-6)	124

Table of Contents (cont.)

PAGE

Section V. Program Provisions

Fox Matrix 125
Minnesota Talent Search 126
Albert Schweitzer Program 127
Proactive Counseling Program (7-12) 128
Part-time Resource Class for Underachieving Gifted Students 129

Section VI. Curriculum

Affective Development Through the Curriculum 130
Curriculum Chart of Modifications 131
Curriculum Chart of Modifications (blank) 132
Curriculum Activities Using Bloom's Taxonomy 133
Ingredients of Curriculum Differentiation 134
Competitions Currently Available 135

Section VII. Evaluation

Evaluation Results From a Well-Planned Program 137
Sample A. Discrepancy Evaluation Model 138
Sample B. Resource Project Evaluation 140
Sample C. Evaluation of Student Products 142
Sample D. Parent Evaluation of a Gifted Program 144
Sample E. Teacher Evaluation of Research Skills 146
Sample F. Classroom Teacher Evaluation of Students 147
Sample G. Student Questionnaire 148
Sample H. Community Service Project Form 150

SAMPLE PHILOSOPHY STATEMENT

The notion of equality is the basis of our heritage. However, no two individuals are the same. True equality requires that there be equal respect and freedom for individual uniqueness and equal opportunity to develop unequal abilities to the fullest potential.

Mediocrity comes from the misconception that all individuals have equal capacity to learn in all areas of endeavors. Excellence lies in the development of special abilities and talents.

Gifted students have the right to an educational environment where their gifts are respected, not resented nor looked down upon. Therefore, they need certain types of programs and materials in order for them to more nearly achieve their potentials for themselves and for the potential contributions that they may make to the community, state, and nation.

-- Philosophy statement on gifted education from Kyreene, Arizona, School District

A fundamental premise underlying our democratic way of life is a belief in the intrinsic worth of every individual. It is generally conceded that education is a vehicle by which every individual may advance toward his fullest potential. For the minority of children at the upper end of the mental ability continuum, the regular educational program is inappropriate. The needs, interest, and readiness of these pupils combine to form a mismatch with programs which are relevant for their more average age-mates limits. They require special education consideration but because many people mistakenly believe the gifted are "so good they can take care of themselves," the plight of the highly able student is often ignored and left unchallenged.

-- California philosophy of gifted education

The guiding characteristics of the Enhanced Learning Program is to provide the gifted with extensions for learning which afford them open circuits for exploring, experiencing and expressing. Activities and opportunities are thus structured to assist the student in assessing and capitalizing upon the unique abilities, talents, interests and needs which represent him as a "self."

-- Philosophy statement on gifted education from Inglewood, California

Fundamental to the basic ideals of a democratic society is the belief in the intrinsic worth of each individual citizen. To insure the maintenance and improvement of the quality of life in such a society, it is essential to provide educational opportunities for each individual to maximize his/her potential. Thus, society by providing for the growth of the individual, will in turn reap the benefits. Traditionally the most neglected students in education, this group will provide the leaders of tomorrow's world. It is imperative that educational programs be provided for assisting these students to more fully realize their potential.

-- Nebraska philosophy of gifted education

Pupils and the public at large are benefited when educational institutions recognize and accommodate to individual differences. When pupils possess outstanding gifts or talents, the benefits to the individual and society are maximized when such attributes are enhanced and developed. No less than 5% of the children in any school district shall be identified by the district staff as high potential: gifted and talented.

-- State of Minnesota, 1976

SAMPLE GOALS

1. To identify at every level and in every school those children who are gifted.

2. To understand the abilities and needs of each gifted child.

3. To provide the educational program which will enable each gifted child to develop his or her abilities to the fullest potential.

4. To prepare gifted and talented youngsters for responsible and productive adult roles.

5. To help each participating gifted child gain a realistic and healthy concept of himself or herself -- his or her strengths, weaknesses, areas of needed improvement, and potentialities.

6. To develop gifted children into intellectually and creatively capable, productive and compassionate human beings.

7. To increase the student's rate of learning and level of achievement.

8. To provide learning alternatives which are appropriately styled to encourage individual growth at varying levels of abilities, interests, and needs.

9. To expose the student to wider and farther intellectual horizons which can be pursued throughout this learning career.

10. To develop each student's ability to recognize, integrate, and utilize his or her potential in order to become a self-actualizing individual.

11. To encourage the becoming of an individual while developing responsibility for self and society.

12. To emphasize individual success and excellence in academic and social realms.

SAMPLE OBJECTIVES

1. Each student identified as underachieving in either reading or math will demonstrate growth which is sufficient to reduce the deficit between anticipated and actual achievement in each subject area by forty percent.

2. Given an enrichment curriculum opportunity in the areas of mathematics, and language arts, 95 percent of the students will be able:

   ...To achieve a composite percentile ranking in these subjects at the 95th percentile or above as measured by standardized achievement tests administered in the regular testing program.

3. Each student will demonstrate growth in critical thinking by writing statements illustrative of his critical thinking skills and by improving 20 percent per year in performance on an appropriate test of critical thinking.

4. Each child will increase in his ability to summarize by distinguishing the significant from the insignificant, distinguishing the relevant from the irrelevant, drawing conclusions or making estimates or predictions from information.

5. The gifted learner will increase his or her ability to solve problems through analytic reasoning as measured by teacher observation and/or structured situational tests applicable to his or her maturation level.

6. Each student will demonstrate increased awareness of his/her own abilities and potentials through written and oral communications gathered over a one-year period. Evidence of each student's growth in self awareness will be based on the increased mention of specific abilities and potentials tabulated from pertinent writings of each student.

7. Given encouragement and opportunities for leadership and service to school, community, and society, the student will be able, at the completion of special class activities to describe a community problem he or she has helped to solve.

8. The student will demonstrate his/her ability to plan logically and carry out independently an in-depth study which is relevant to him/her as measured by teacher observation and judgment.

9. Upon completion of an independent or group-studied topic or activity, the student will improve in his/her ability to demonstrate ability in at least two of the areas relative to his/her level or need:

   ...identifying, acquiring, recalling information
   ...interpreting, translating information
   ...organizing, classifying, analyzing information
   ...comparing, contrasting information
   ...judging, validating, assessing information

10. Given time during the day to plan and work independently, each child will develop a contract stating what he/she wishes to study, what materials he/she needs, how much time he/she needs, and how he/she will report what he/she has learned as evidenced by teacher judgment.

Adapted from Kaplan, Sandra. Providing Programs for the Gifted and Talented: A Handbook. Council for Exceptional Children, Reston, Virginia, 1977.

WORKSHEET ASSESSING PROGRAM OPTIONS

Directions: Use this list of Program Options as the key to numbers used in the last 2 columns on following pages.

1. Nongraded primary
2. Nongraded school
3. Cross-grade reading groups
4. Child read with higher grade
5. Jr. Great Books programs
6. Cross-grade math groups
7. Child take math with higher grade
8. Activity period or mini-courses for all students (1 hr/wk or more)
9. Special class for high ability students (1-3 hrs/wk)
10. Special class for high ability students (3 1/2-6 hrs/wk)
11. Special class for high ability students (6 1/2-15 hrs/wk)
12. After school classes for high ability students
13. Summer classes for high ability students
14. Saturday classes for high ability students
15. Team teaching flexible classes for high ability students
16. Guided Independent Study Program
17. Resource Room
18. Cluster Grouping (Group of high potential students in regular class)
19. Omnibus Program
20. Self-contained class for gifted students
21. Honors or enriched English
22. Honors or enriched Math
23. Advanced Biology
24. Advanced Chemistry
25. Advanced Physics
26. Foreign languages - 3rd or 4th year
27. Other enriched classes - indicate subject
28. Program for high ability students, i.e., school within a school, etc.
29. Advanced Placement in English
30. Advanced Placement in History
31. Advanced Placement in other subjects - indicate subject
32. Humanities class for high ability students
33. Students enrolled in university or college classes
34. Early graduation policy
35. Early entrance to college
36. Debate program
37. Declaration - speech program
38. School orchestra or instrumental groups
39. School band
40. School or class plays
41. Pro-active Counseling Class
42. Theory of Knowledge Class
43. Future Problem Solving Program
44. Knowledge Bowl or Knowledge Master
45. Early Entrance
46. Grade Advancement
47. Odyssey of the Mind
48. Mentor Connection
49. Renzulli Revolving Door Program
50. Science Fair
51. Spelling Bee
52. Inventor's Fair
53. Arts and Academic's Program
54. _____
55. _____
56. _____

Worksheet Assessing Current Program Options

Grade	Number of Sections	Total Students	5% of Students	Options	
				Current	Possible
Kindergarten Rep.*_____					
First Grade Rep.*_____					
Second Grade Rep.*_____					
Third Grade Rep.*_____					
Fourth Grade Rep.*_____					
Fifth Grade Rep.*_____					
Sixth Grade Rep.*_____					
Seventh Grade English Rep.*_____					
Math Rep.*_____					

Worksheet Assessing Current Program Options (page 2)

Grade	Number of Sections	Total Students	5% of Students	Options Current	Options Possible
Seventh Grade (cont.)					
Other_____					
Rep.*_____					
Other_____					
Rep.*_____					
_____					
_____					
Eighth Grade					
English					
Rep.*_____					
Math					
Rep.*_____					
Other_____					
Rep.*_____					
Other_____					
Rep.*_____					
_____					
_____					
Ninth Grade					
English					
Rep.*_____					
Math					
Rep.*_____					
Other_____					
Rep.*_____					

Worksheet Assessing Current Program Options (page 3)

Grade	Number of Sections	Total Students	5% of Students	Options Current	Options Possible
Ninth Grade (cont.)					
Other _____					
Rep.* _____					
Tenth Grade					
English					
Rep.* _____					
Other _____					
Rep.* _____					
Other _____					
Rep.* _____					
Other _____					
Rep.* _____					
Eleventh Grade					
English					
Rep.* _____					
Other _____					
Rep.* _____					
Other _____					
Rep.* _____					
Other _____					
Rep.* _____					

Worksheet Assessing Current Program Options (page 4)

Grade	Number of Sections	Total Students	5% of Students	Options	
				Current	Possible
Twelfth Grade					
English					
Rep.*_____					
Other_____					
Rep.*_____					
Other_____					
Rep.*_____					
Other_____					
Rep.*_____					

*Rep. - Staff person who serves as representative for the particular grade or subject.

S A M P L E

GIFTED EDUCATION PROGRAM PLAN

Jan. 8, 1986

I. School District Information

A. District Name and Number Smalltown, Minnesota #1001

B. Address Smalltown, MN 55789 Phone 151-289-3000

C. Superintendent John Johnson

D. School Board Members

1. Bill Jones
2. Mary Smith
3. Tom Brown
4. Andy Cole
5. Betty Baron
6. Rolf James
7. Fred Jackson
8. _____

E. Current School Population
Elementary Students 301 No. of Elementary Schools 1
Junior High or Middle School Students 172
Number of Junior High Schools 1
High School Students 150 No. of High Schools 1

F. Date of Local School Board Approval of Plan March 28, 1986

G. Name of Program Coordinator Elizabeth Evans

II. Program for Gifted and Talented Students

A. Task Force Members

Name	Position	Address
1. John Johnson	Superintendent	Smalltown Public Schools
2. Lyle Anderson	high school prin.	" " "
3. Louise Brown	elem. prin.	" " "
4. Neil Helders	jr. high prin.	" " "
5. Amy O'Brien	parent	Route 1, Smalltown
6. Charles Porter	parent	P.O. 40, Smalltown
7. Helen Horton	parent	Route 2, Smalltown
8. Fred Jackson	school board member	Smalltown
9. Dan Wallace	librarian	Smalltown Public Schools
10. Alice Baker	teacher (high school)	" " "
11. Jack Nimble	teacher (jr. high)	" " "
12. Fred Hertz	teacher (elem.)	" " "
13. Ann Anderson	senior student	" " "

Task Force Meetings

Dates: Feb. 14, March 6, March 12, March 17

B. Philosophy Statement about the Education of Gifted Students: Smalltown Public Schools will provide school experiences which are challenging for students with outstanding abilities

C. Goals and Objectives

1. **Goal:** To increase students' rate of learning

   Objectives:

   a. Elem. Will remove ceilings from reading.
   b. Jr. High--Will establish a 7-8 math section for 7th graders
   c. High- Will allow students to test out of units of study.
   d. Will establish an early entrance policy.

2. **Goal:** To develop students' sense of responsibility to the community.

   Objectives:

   a. Elem. Will conduct the Albert Schweitzer Program.
   b. Jr. High - " " " " " "
   c. Sr. High - " " " " " "
   d. Will print a record describing all the Albert Schweitzer Projects/

3. **Goal:** To provide wide intellectual horizons for gifted students

   Objectives:

   a. Elem. Will provide the Omnibus Program for grades 2-6.
   b. Jr. High-Will continue the Jr. Great Books Program thru grade 9.
   c. High School - Will establish a mentorship program
   d. Will establish a series of bi-monthly seminars for parents.

4. **Goal:** To help gifted children develop a healthy self-concept.

SAMPLE

Objectives:

a. Elem. Will provide in-service session for total staff about self-concept.

b. Jr. High - Counselor will hold monthly seminars for

c. junior high and senior high gifted students -Pro-active Counseling Groups

d. Will provide appropriate in-service training for secondary staff

D. Plans for Total Staff Orientation

	Date	Activity	Person Responsible
1.	March 14	Staff Meeting	Supt.
2.	April 1	Elem. staff inservice	Principal
3.	April 30	Secondary staff	Program Coordinator

E. Plans for In-service Training for Staff

1. Aug. 30, 1986 Pre-school workshop
2. Sept. 10 1986 Off-campus graduate class on gifted education begins
3. Oct. 18, 1986 Fall Teachers Conference sessions on gifted education
4. Nov. 19, 1986 Ekem. and Sec. Staff inservice on self-concept.

F. Plans for Parent Involvement and communication

1. Invitation to March 14 staff meeting
2. Letters to parents about program
3. Meeting of parents of nominated students

G. Plans for Coordination with other Agencies, Organizations, etc.

1. Community Education - Junior Great Books
2. Toastmaster's Club - inservice to teachers about self-concept
3. State Dept. of Education Program Specialist in Gifted Ed.- planning meeting
4. Kiwanis - Mentorship Program
5. Smalltown mayor - Albert Schweitzer Program planning session

H. Plans for Evaluation of Program

1. Record test data for students (pre and post)
2. Select appropriate questionnaires for pre and post administration
3. Analyze results
4. Make recommendations for revision of program

5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

SAMPLE

I. Program Provisions

Grade	Provisions	Implementation Date	Identification Criteria	Person Responsible	Budget ($ and time)
K	**Current**				
	1. NONE				
	2.				
	3.				
	Proposed				
	1. early entrance	Aug. 86	Indiv. I.Q. etc.	el. princ.	1 day
	2.				
	3. ~~reading group~~	~~Sept. 86~~	~~reading test~~	~~kg. teher~~	~~2 days tr.~~ $100
I	**Current**				
	1. NONE				
	2.				
	3.				
	Proposed				
	1. high reading group	Nov. 86	95%ile rdg. score	1st. gr. tch.	curric. writing time $100
	2.				
	3.				
II	**Current**				
	1. none				
	2.				
	3.				
	Proposed				
	1. Omnibus	Nov. 86	Renzulli and	coordinator	2 hrs./wk
	2.		test schores		
	3.				
III	**Current**				
	1. Jr. Grt. Books	1982	rdg. scores	trained vol.	$100/yr books
	2.				
	3.				
	Proposed				
	1. Junior Grt. Books	continuation			
	2. Omnibus	Nov 86	Renzulli and	coordinator	2 hr./wk
	3.		test scores		
IV	**Current**				
	1. Jr. Grt. Books	1982	rdg. score	volunteer	$100/yr books and training
	2.				
	3.				
	Proposed				
	1. Jr. Grt. Books	continuation			
	2. Omnibus	Nov. 86	Renzulli and	coordinator	2 hrs/wk.
	3.		test scores		

S A M P L E

Grade	Options	Implementation Date	Identification Criteria	Person Responsible	Budget ($ and time)
V	**Current**				
	1. Jr. Grt. Books	1982	rdg. scores	volunteers	$100/yr
	2.				
	3.				
	Proposed				
	1. Jr. Grt. Books	continuation			
	2. Omnibus	Nov 86	Renzulli and Scores	coordin.	2 hr/wk
	3. Albert Schweitzer	Jan 87	std. interest	el. prin	1 hr/wk
VI	**Current**				
	1. Jr. Grt. Books	1982	rdg. scores	volunteers	$100/yr
	2.				
	3.				
	Proposed				
	1. Jr. Grt. Books	continuation			
	2. Omnibus	Nov 86	Renzulli & scores	coor.	2 hr/wk
	3. Albert Schweitzer	Jan 87	std. interest	el. prin	1 hr/wk
VII	**Current**				
	1. NONE				
	2.				
	3.				
	Proposed				
	1. Jr. Grt. Books	Oct. 86	rdg. scores	volunteer	$200-training and books
	2. math (7-8)	Sept. 86	math scores	math tcher	$100 cur. writing
	3. Schweitzer	Jan 87	std. interest	coor.	1 hr/wk
	4. Talent Search	Dec. 87	95%ile score	counselor	3 hrs./yr
VIII	**Current**				
	1. NONE				
	2.				
	3.				
	Proposed				
	1. Schweitzer	Jan 87	student interest	counselor	1 hr/wk
	2. Talent Search	Dec. 87	95%ile	counselor	3 hr./yr
	3. English cluster cl.	Sept. 86	lang. arts scores	English tch.	$100 curric. writing
	4. Jr. Grt. Books	Oct 86	rdg. scores	volunteer	$200 training , books
IX	**Current**				
	1. NONE				
	2.				
	3.				
	Proposed				
	1. Schweitzer	Jan.87	student interest	counselor	1 hr/wk
	2. Eng. Cluster cl.	Sept. 86	lang. arts scores	Eng. tch.	$100 curric. writing
	3. Jr. Grt. Books	Oct. 86	rdg scores	volunteer	$200 tra. & books
	4. Talent Search	Dec 86	95%ile	counselor	3 hr./yr

S A M P L E

Grade	Options	Implementation Date	Identification Criteria	Person Responsible	Budget ($ and time)
X	**Current**				
	1. various courses				
	2.				
	3.				
	Proposed				
	1. Schweitzer	Jan 87	student interest	coordinator	1 hr/wk
	2. Seminars	Oct 86	college bound std	coordinator	1 hr/wk
	3.				
XI	**Current**				
	1. various courses				
	2.				
	3.				
	Proposed				
	1. Schweitzer	Jan 87	std. interest	coordinator	1 hr/wk
	2. Humanities 11/12	Sept. 86	recommendations	Eng. tch.	$200 curric. writ.
	3. Mentorships	Feb 87	std. int. and rec.	coor.	1 hr/wk
XII	**Current**				
	1. various courses				
	2. Natl Honor Soc.	1975	nominated	counselor	1 hr/wk
	3.				
	Proposed				
	1. Natl Honor Soc.	continuation			
	2. Schweitzer	Jan 87	std. interest	coor.	1 hr/wk
	3. Humanities 11/12	Sept. 86	recom.	Eng. tch.	see above
	4. Mentorship	Feb. 87	std. int. & rec.	coor.	1 hr/wk

APPROXIMATE COST OF PROGRAM

I. Coordinator of the Gifted and Talented Program — 20 hours/wk
   15 hours per week contact time
   5 hours/week preparation time — $12,000

II. Junior Great Books Program — $1,100 (training and books)

III. Curricular writing time for new courses — $ 700

IV. Counselor 4 hr/week and 9 hours/year (Talent Search)

V. El. principal — 2 hours/wk and 2 days/year

total — $13,800 plus dedicated time

WORKSHEET
FOR DETERMINING SPECIFIC DISTRICT PERSONNEL AND PARENT RESPONSIBILITIES

Should be used by district Task Force to determine areas of responsibility.

KEY
M - major responsibility
F - facilitates the program
A - assists in the program
S - supports the program
P - provides input

Program Components	Super-intendant	School Board	Program Coor-dinator	Building Principal	Coun-selor	Teacher of Gifted	Parents
1. Philosophy							
2. Goals							
3. Definition							
4. Writing of plan							
5. Student Identification							
a. Development process							
b. Implement							
6. Program Options							
a. Determine							
b. Implement							
7. Curriculum							
a. Determine							
b. Articulate							
c. Implement							
8. Staff Development							
a. Plan							
b. Implement							
9. Communication							
a. District Staff							
b. Parents							
c. Community							
10. Evaluation							
a. Design							
b. Conduct program evaluation							
c. Conduct student evaluation							

STAFF DEVELOPMENT TRAINING COMPONENTS

Topics to be included in staff development training sessions for districts at various stages of program development

AUDIENCES	Stage One AWARENESS	Stage Two IMPLEMENTATION	Stage Three MAINTENANCE
I. Administration School Board	1. Overview of research 2. Rationale 3. Characteristics 4. Needs 5. Identification 6. Curriculum 7. Program model 8. Legislation 9. Role of parent	1. Develop plan 2. Further research 3. Program prototypes 4. Analyze services 5. Analyze student needs 6. Analyze resources 7. Areas of giftedness 8. Teacher selection 9. Program evaluation	1. Evaluation information 2. Needs assessment 3. Update on research 4. Update on legislation
II. Teachers, counselors, other professional and instructional staff and aides without direct service responsibilities	Same as Awareness I.	1. Intro program mode 2. Identification 3. Characteristics 4. Current differentiation 5. Inst. strategies 6. Importance of classroom, teacher	1. Evaluation information 2. Update on research 3. Access to training of direct service teachers) 4. Importance of classroom teacher
III. Teachers and counselors with direct service responsibilities	Same as Awareness I.	1. Same as Implementation II 7. Program curriculum 8. Teaching strategies 9. Student evaluation 10. Social-emotional 11. Teacher/counselor 12. Special needs 13. Parent family 14. Advocacy 15. Material resources 16. District services 17. Networking 18. Learning styles 19. Process skills 20. Test interpretation 21. Marketing skills	1. Update research 2. Evaluation information 3. Learning styles 4. Interpersonal Com. 5. Marketing 6. Stress Management 7. Organizational skills 8. Classroom Management 9. Test interpretation 10. Presentation skills 11. Development of differentiated products 12. Parent communication

AUDIENCES	Stage One AWARENESS	Stage Two IMPLEMENTATION	Stage Three MAINTENANCE
IV. Support Staff Custodians, bus drivers, lunch personnel, etc.	none	1. Program model 2. Characteristics 3. Needs 4. Rationale	1. Evaluation information
V. Parents	1. Role of parent 2. Advocacy 3. Same as I.	1. Identification 2. Program model 3. Areas of giftedness 4. Characteristics 5. Advocacy 6. Parent resources	1. Formative evaluation information 2. Update on research 3. Importance of parent 4. Social-emotional 5. Support network 6. Advocacy 7. How to be a program resource
VI. Program Coordinator	1. Same as I.	1. Same as III. 2. Marketing skills 3. Communication 4. Evaluation 5. Management 6. Presentation 7. Test Interpretation 8. Developing goals and action plan	1. Team building 2. Creative financing 3. Parent 4. Organizational skills 5. Grant-writing 6. Writing skills 7. Politics 8. Time stress management 9. Curriculum writing 10. Legislative update 11. Networking 12. Management skills (effective meetings)

This chart was developed by the Minnesota State Advisory Council for the Gifted and Talented, 1985.

INTERRELATIONSHIP OF CHARACTERISTICS, NEED AND PROBLEMS AMONG G/T PERSONS

Differentiating Characteristics	Related Needs	Possible Concomitant Problems
verbal proficiency; advanced language development	to share ideas verbally and in depth	tends to dominate conversation; perceived as "show-off"
power of abstraction, conceptualization, generalizing	to develop inquiry skills; analyze their own learning processes	questions generalizations of others; may appear disrespectful; may reject or omit detail
accelerated pace of thought processes; learns quickly	to be exposed to ideas at many levels	frustration with inactivity and lack of progress
extraordinary quantity of advanced information on a variety of topics	to provide new and challenging information	boredom with regular curriculum; impatience with waiting for the "group"
quick, accurate memory	to emphasize concepts because of early mastery of basics	dislike for routine and drills
ability to concentrate and persist	to pursue inquiries beyond the allotted timelines	perceived as stubborn; may resist interruption
early ability to design conceptual frameworks and visualize relationships; preference for structure and order	to use frameworks in gathering information; develop a tolerance for ambiguity	their inquisitiveness may be an irritant to others; may overextend their energy level due to a lack of integration
subtle or hostile sense of humor	to learn how behaviors affect feelings of others	negative use of humor may damage interpersonal relationships
heightened self-awareness; feelings of "being different"	group interaction with similarly talented persons	isolation and self-consciousness
high expectations of self and others	to learn to set realistic goals	self-criticism; social problem as others fail to meet their high standards
idealism and early sense of justice	to find solvable problems	frustration from attempting unrealistic reforms; depression
discrepancy between physical and intellectual development	to appreciate physical capacities; find satisfaction in physical activities	hesitation or refusal to participate in activities where he/she does not excel
extraordinary hand-eye coordination and spatial sense; preciseness; power of concentration	encouragement to develop skills beyond classroom; freedom to excel and explore	possible boredom with tasks and impatience with others
responsible, self-confident; sociable; able to lead others	understanding of leadership steps and practice in leadership skills	ability may disappear or turn negative if not used constructively; preceived as "bossy"; difficulty "following"

Modified after Clark, Barbara, "Growing Up Gifted," Charles Merrill Publishing Co. 1979.

DESCRIPTIONS OF COMMONLY-USED STANDARDIZED IDENTIFICATION INSTRUMENTS

(See Buros Mental Measurement Yearbook, 8th Edition for more information.)

Individual Intelligence Tests

1. Stanford-Binet Intelligence Scale (S-B) 1972 - Third Revision

Riverside Publishing Co. 8420 Bryn Mawr Avenue, Chicago, IL 60631

Description: An individual test of mental activities that are known as general intelligence for ages 2 and over. Verbal, nonverbal, and performance items are found in the Binet battery. The test is given orally, scored manually, 60-90 minutes to administer.

Expectancies at various age levels:

1. At the early age level (2-5), 85% of the items measure visual motor capacities, nonverbal reasoning, social intelligence, and language functions.

2. The middle age children have a memory for stories and designs and are developing abstract reasoning and conceptual thinking.

3. Adolescents are tested in verbal reasoning, memory, and social intelligence among other items.

4. Post adolescent testing is dominated by language functions and conceptual thinking. Reasoning, comprehension, analysis and generalization abilities are evaluated.

The IQ equivalency of the 98% score of the Stanford-Binet is 132. Those with high IQ's have usually been successful in educational system and professional world. Low socioeconomic groups and culturally different children score low or low average, generally, which may be partially the result of the low loading in the Binet of visual perception, visual memory, and rote learning. Knowing that the standardized sample was all white and of a higher socioeconomic level than the general population makes criticism of the test's use with these groups worth considering. However, the Astor Program in New York City is successfully using the test.

The Binet does have an advantage over other tests in covering the low range and the extremes. This test requires a trained examiner.

2. **Wechsler Intelligence Scale for Children Revised (WISC-R) 1974**

Psychological Corporation, 7500 Old Oak Boulevard, Cleveland, Ohio 44130

Description: An individual test of mental activities which are known as general intelligence for ages 5-15. The WISC gives 15 scores, divided into two scales, verbal - information, comprehension, arithmetic, similarities, vocabulary, digit span (optional), total; performance - picture completion, picture arrangement, block design, object assembly, mazes (optional), coding, total, and total score MA and IQ scores given. The complete test takes from 40-60 minutes. The IQ equivalency of the 98% score on the WISC is 131.

3. **Leiter International Performance Scale (1955)**

C.H. Stoelting Co.

Description: An individual nonverbal scale for ages 2-18; is most suitable for children 3-8. It gives both an MA and IQ. It has no time limits. Tests ability to learn at lower levels.

Test is administered by showing picture cards and pantomiming directions. Child chooses matching blocks. Tasks range from matching colors and completing forms, to completing patterns, design, and classification of objects. The IQ equivalency of the 98% score on the Leiter is 127. It is suggested that it is especially useful for testing children with speech and hearing difficulties, foreign born, cross cultural and bilingual children, and shy or withdrawn children. Use by experienced clinician advised.

4. **Slosson Intelligence Test (SIT) 1963**

Slosson Educational Publications, Inc. P.O. Box 280, East Aurora, NY 14052

Description: A brief individual test of intelligence designed to be used with infants from two weeks through adults (27 years). There are no time limits. Gives a ratio IQ score. Testing and scoring take from 10-30 minutes and can be used by relatively untrained examiners. Infant testing items assess postural control and locomotion. Between 2 and 4 years, the emphasis is on language skills. Above 4 years, all questions are presented verbally and require spoken responses. Content includes mathematical reasoning, vocabulary, auditory memory, and information.

The SIT is best used as a screening device and should be used with caution where diagnostic decisions or special class placement is required. The heavy emphasis on language skills makes it a difficult test for disadvantaged or culturally different children, especially at the preschool level.

Group Intelligence Tests

1. California Test of Mental Maturity (CTMM) - 1963 Revision

California Test Bureau
Divison of McGraw-Hill Book Company

Description: A group test of abilities basic to learning, problem-solving and responding to new situations for K-adult. Test is organized around five factors: logical reasoning, spatial relationships, numerical reasoning, verbal concepts, and memory.

It is suggested that it be used primarily at middle and upper levels as the lower levels lack reliability. The Short Form of the test takes less time and may provide just as adequate a measure.

2. The Lorge-Thorndike Intelligence Tests, Multi-Level Edition (1966)

Houghton Mifflin CO.

Description: A group test of intelligence that uses test material that is both verbal and nonverbal in grades 3-15. The test is meant to test abstract intelligence, i.e., the ability to work with ideas and relationships. The test provides a verbal IQ (for higher levels) and a nonverbal IQ, with provisions for a composite IQ score if it is desired. All IQ scores are deviation IQ's, and median IQ's for each age group are presented. The administration takes a little over an hour. Separate answer sheets are used and machine scoring is available.

The test is timed. Nonverbal scores do not seem as effective as verbal scores in predicting school achievement. The verbal battery also shows better reliability (.83-.91; nonverbal .80-.88). This test is reported to be a widely-used, well- constructed and presented series of tests.

3. Otis-Lennon School Ability Test, Forms R and S (1979)

The Psychological Corporation, 757 Third Avenue, New York, NY 10017

Description: A group intelligence test for grades K-12. Scores may be given as deviation IQs, as age and grade percentile ranks showing the pupils' standing in the national sample, and as stanines. The Otis-Lennon seeks to test the verbal-educational aspects of mental abilities, not the practical-mechanical, and items measure broad reasoning abilities involving manipulation of ideas.

The test is timed. The three lower levels of the test require no reading, and minimal competency in reading ability is required for the other test levels with a few exceptions. The test correlates adequately with other general scholastic aptitude measures. The test results must be interpreted carefully for children with other than normal backgrounds and motivation. The test has an insufficient range at some levels, making the measurement of exceptionally high or low ability difficult. This test predicts scholastic success because it is a direct measure of scholastic ability.

4. **Developing Cognitive Abilities Test (DCAT) 1981**

American Testronics, P.O. Box 2270, Iowa City, Iowa 52244

Description: A measure of learning characteristics and abilities that contribute to academic performance in grades 2-12. All DCAT levels measure three content areas: Verbal Ability, Quantitative Ability, Spatial Ability. Furthermore, Levels 3-12 of DCAT provide information on five levels of Bloom's taxonomy: Knowledge, Comprehension, Application, Analysis, Synthesis. This unique combination of content area and cognitive level assessment provides users with a specificity and quality of information that will allow them to tailor instruction to meet individual needs. Can derive IQ. Group administered 30-40 minutes test. Standardized on 50,000 students.

5. **Cognitive Ability Test (CogAT) 1972**

Riverside Publishing Company

Assessment of verbal, quatitative and nonverbal abilities. Primary (K-3) (56 minutes) and multilevel (3-12) (98 minutes) editions. Concurrent norming with Iowa Tests of Basic Skills.

6. **Structure of the Intellect (SOI) Test, 1978**

SOI Institute, 214 Main Street El Legundo, CA 90245

Test is based on Guilford's Structure of the Intellect and measures many intellectual abilities. Curriculum materials may be purchased to remediate weaknesses and build strengths. Recent research concludes that the SOI (Gifted Screening Form GSL) does not show a strong relationship to success in the gifted program as measured by 22 variables. Copies of this report by Frances O'Tuel, Marjory Ward and Ruth K. Rawl can be obtained from the Gifted Program Specialist, Minnesota Department of Education.

7. **Ross Test of Higher Cognitive Processes, 1976**

Academic Therapy Publications, 20 Commercial Blvd., Novato, CA 94947

Grades 4-6. Measures analysis, synthesis and evaluation thinking skills. May be used to assess effectiveness of curricula which stresses critical thinking.

Tests of Creativity and Levels of Thinking

1. **Torrance Tests of Creative Thinking (TTCT) (K-12)(revised 1972)**

Scholastic Testing Service, Inc. 480 Meyer Road, Bensenville, IL 60106

Description: A test of creativity based on Guilford's Structure of the Intellect that may be given individually or in groups. The intent is to identify process abilities necessary for operating creatively. The test is divided into verbal and figural subtests, with scores given for fluency, flexibility, originality, and elaboration in each area.

There is a controversy regarding the kind of processes the tests are attempting to identify and especially regarding criterion used to validate the results (e.g., quality of the response is not considered in scoring). Whether this test can be considered a valid test of creativity is dependent on the definition of creativity one uses. Studies of content validity and ability of the test to predict adult creative achievement are still being conducted. At this time, Torrance believes that the TTCT alone is not an adequate predictor. There appears to be an overlap of the abilities being measured and those commonly assessed on intelligence tests. The test may be administered by anyone. The major problem is in whether measures of fluency, flexibility, originality, and elaboration can be considered measures of creativity.

KRANZ TALENT IDENTIFICATION INSTRUMENT

An identification procedure which discovers gifted/talented students in all socio-economic, ethnic and cultural groups, yet does not rely on conventional testing methods.

It is a three-stage procedure in which teachers are trained as raters. All children are appraised before any selections are made. A screening committee then evaluates the teacher ratings and pupil data in order to make the final selections for a gifted program.

The KTII is an instrument which combines objective and subjective data about a potential gifted candidate to build a multi-talented composite on each child. The entire class is rated on each of the following:

- Visual arts talent
- One-sided talent
- Psychomotor talent
- Hidden talent
- Performing arts talent
- Academic talent
- Spatial and Abstract Thinking talent
- Creative talent
- Leadership and organization talent
- Underachievement talent

KTII kit can be obtained by contacting Dr. Bella Kranz, 119 Grand Street, Jersey City, New Jersey 07302 (201-435-1587).

INFORMATION ABOUT HANDICAPPED GIFTED LEARNERS

Gifted learners appear in every population of handicapped students with the obvious exceptions of the mentally retarded and severely developmentally disabled. Special classes for the deaf, the blind, the emotionally disturbed, the orthopedically handicapped, and the learning handicapped very often have, among their students, children who are also gifted. Until recently, little concern has been felt for these gifted children beyond the remediation of their handicapping condition. Unfortunately gifted programs often refuse to include the handicapped gifted.

June Maker (1977) (see bibliography) brought together some very interesting data. She found different disability groups differ in intellectual capacity, cognitive development, and self-concept. The blind and visually impaired seem to be capable of the same ability levels as the sighted, but attain their maximum levels later. These students often show deficits in meaningful verbal memory. Maker interviewed some gifted visually handicapped people. Their suggestions included a desire for involvement in less protective, more integrated educational environments and more opportunities to explore the environment using their other, more operable senses. Maker noted a slower rate of development and difficulty dealing with abstractions among the deaf. Her deaf interviewees praised special separate schools. Learning disabled and emotionally disturbed students have diverse problems that reflect the wide array of characteristics under these designations. Problems of attention, perception, and ability to evaluate adequately were the most commonly found. For the physically handicapped, unless the condition is also related to mental retardation, the rate and type of cognitive processing would be comparable to the range of a normal population.

Maker examined the special problems that people who are both handicapped and gifted have in developing a positive self-concept. When the low self-esteem that develops around the disabling condition is combined with the often unrealistic expectations of the gifted learner, a level of dissonance between real and ideal self can occur that adds greatly to the handicapped person's inability to relate and succeed.

This initial drawing together of material showing some of the problems of the handicapped gifted in an educational system that often responds to categories instead of the individual learners has many excellent suggestions for the home and the school. In addition, Maker's book discusses programs for handicapped gifted and talented children and has a very useful section on organizations, agencies, and other resources.

SELECTION OF STUDENTS FOR PROGRAM IN VISUAL AND PERFORMING ARTS

1. Identification of artistic talent is a many-step process involving many different types of people. To be effective, the identification process must involve teachers in classrooms, school art teachers, teachers in the community, parents, school administrators, and finally, artists in the field. All of these people will need information and understanding of the dimensions of artistic talent and the procedures regarding the identification of it.

2. The beginning of the process is the narrowing-down of the whole population. This must be accomplished through a vareity of devices: teacher/peer/parent/school administration nominations, perceptual testing (sound, visual, movement), assessment of creative thinking ability (Torrance Creativity Test, activities in divergent thinking in the classroom), teacher checklists (Renzulli Teacher Rating Scales, others). Use of these measurement devices requires a complete understanding of them by the users. To achieve this understanding, workshops and written material must be available for the involved personnel.

3. Two notes of caution are necessary: Throughout the identification process people must be aware that talent indicators will shift and change at different times in the development of the child. There will remain, however, certain characteristics of artistic behavior which will move in and out of prominence in the expressions of the child. The pre-school child who is freely expressing through dramatic play, visual media, movement inventions and musical improvisations may diminish these behaviors when confronted with the peer group. Realism and accurate depiction will become more important than inventing and fantasizing; inventing and fantasizing will not disappear -- they will become more resistant to discovery. Secondly, the pre-adolescent child will be very careful not to reveal too much feeling in artistic expression and may even be resistant to technical representation. In both groups, the early school child and the pre-adolescent, careful and gentle approaches are necessary to uncover potential artistic talent.

4. The adolescent is more capable of risk-taking; a certain self-expression is expected by this stage of development. However, undeveloped talent does exist in the pre-adult and is often unknown to the individual. Exposures to artistic media and expression, simple involvement in artistic activities, careful observations by adults often reveal high potential talent in adolescents. Therefore, in the identification procedure, nominators must be perceptive about potential as well as manifested behavior.

5. Once the population has been narrowed down to a manageable size, it is time to bring in the artists. Artists in the field, in conjunction with the school art teachers, are most capable of identifying developed and undeveloped talent. It must be stressed, however, that these artists and teachers must also train for and understand the process of identification. In their repertory, these artists must have an understanding of how artistic expression changes through a child's life, have accepted the aforestated definition of artistic talent and have had experience with nurturing their own as well as others' artistic talent. Trained artists are capable of developing activities which will reveal artistic behaviors in their finest forms; they are also capable of assessing the value of

these artistic behaviors. Artists must develop their own activities for assessment. Using activities developed by others often confuses the procedure and clouds the final judgment.

6. Procedural Model: Identification must:

___ 1. Develop understanding of dimensions of artistic talent for classroom teachers, school arts teachers, teachers in the community, parents and school administration. Consultants with experience in the field can provide training sessions and written material.

___ 2. Administer first-round identification procedures. These may include nominations, perceptual tests, observation checklists.

___ 3. Train artists who will administer final stage training sessions with consultants so that effective activities can be developed.

DIRECTIONS FOR THE USE OF IDENTIFICATION MATRIX WORKSHEETS SELECTING STUDENTS FOR GIFTED PROGRAMS

A. Develop a pool of possible students from the standardized scores on individual or group intelligence tests (if available) and composite achievement test scores.

1. Fill in worksheet for each student whose intelligence test score and/or composite achievement test score falls into one of the boxes in I and II in the worksheet.

2. Write the student's name and grade on the top line. Put a check in the appropriate boxes in I and II. (omit I if no intelligence test scores are available.)

B. For each student in the pool (for whom a worksheet has been started) fill in other information as follows:

1. List achievement test subtests under III e.g. vocabulary, reading comprehension, language arts, science, math, etc. Use whatever subtests will help identify the areas appropriate for the types of programs you might offer. You might want to give double weight to all scores in the achievement section because of the nature of the course being offered.

2. Ask teachers who know the students well to complete an identification form for the gifted and talented for each student in the pool. (Choose appropriate scales, as may not need all of them.)

3. Write the title of each set of characteristics heading under IV A.

4. Make a checkmark in the appropriate box for each set of characteristics (learning, motivational etc.).

5. If art, music, drama etc. will be considered, ask the teacher who works in that area with the student to list the talent under IV B and make a checkmark in the appropriate box.

C. Decide which kind of program(s) will be offered and the appropriate criteria for each. Refer to the Selection Criteria pages.

D. Total the scores for each student in the pool for each type of program being planned. Note that the boxes checked have different values. Those in the column farthest to the left have a weight of 5. Those in the column far right are worth 1 point, etc.

For example, if a student in the pool has checks as follows:

	5	4	3	2	1
Intelligence Test	X				
Math achievement		X			
Learning				X	
Motivation		X			

His score for a math course would be 15.

E. Determine the different scores for the students for each type of course being offered.

F. Make a table that lists all scores for all students in the pool.

Students in Pool	Math	Social Studies	Language Arts	Science	Arts
1. Mary Jones	14	19	13	18	7
2. Tom Evans	6	8	9	7	13
3. Ann Smith	19	13	10	22	7
4. Jeff Ames	9	22	24	8	6

G. Select the students to invite to each class by choosing those with the highest scores in each category. If the teacher wants to work with ten students, you might choose the nine highest scores and save a place for a student who has some exceptional talent in the subject but whose other scores are low.

Worksheet for Selecting Students for Gifted Programs

Student _____ Grade _____ Program _____

	Scores				
I. Aptitude Tests	140+	130-139	120-129	111-119	100-110
	98% ile	95-97% ile	90-94% ile	85-89% ile	50-84%ile
II. Achievement Test Composite Scores					
III. Achievement					
IV. Teacher Recommendations					
A. Renzulli Scales Learning Characteristics	7	6-5	4-3	2	1-0
Motivation					
Creativity					
Leadership					
Recommendations	Superior	Very Good	Good	Average	Below
Art					
Music					
Drama					
Weights	5	4	3	2	1
Weighted Column Totals (Column Totals x Weights)					

Total Points _____
(Add Weighted Column Totals)

SELECTION CRITERIA FOR SPECIFIC UNITS

UNIT OF STUDY	OBJECTIVE CRITERIA TEST RESULTS	SUBJECTIVE CRITERIA TEACHER'S RECOMMENDATION
Math Pythagorean Pathways Computer Probability Great Grid	Intelligence Test Achievement Test (Math Portion)	Learning Characteristic Motivational
Social Studies Election Education Government World War II	Intelligence Test Achievement Test (Social Studies)	Motivational Learning Leadership
Language Newspaper Creative Writing Poetry	Intelligence Test Achievement Test (Language, Reading)	Learning Motivational Creativity
Science Solar Energy Plants Waters	Intelligence Test Achievement Test (Science)	Learning Motivational
Fine Arts Music Visual Arts Drama Dance		Motivational Recommendations Creativity

*This is by no means a complete list of units developed. It is an example of how the selection process might work for different units of study.

TEACHER CHECKLIST FOR THE GIFTED AND TALENTED
ADAPTED FROM RENZULLI SCALE

Name_____ Grade____ Date of Report_____ Teacher_____

Check Characteristics

Learning Characteristics

___1. Unusually advanced vocabulary
___2. Possesses a large storehouse of information
___3. Quick mastery and recall
___4. Has insight into cause-effect relationships
___5. Keen observer
___6. Reads a great deal on own; does not avoid difficult material
___7. Sees logical and common sense answers to problems

Learning Total_____

Motivational Characteristics

___1. Easily bored with routine tasks
___2. Needs little external motivation to follow through on tasks
___3. Strives toward perfection
___4. Prefers to work independently
___5. Is interested in "adult" problems (religion, politics, race, etc.)
___6. Often self-assertive; stubborn in beliefs
___7. Likes to organize and bring structure to things.

Motivational Total_____

Creativity Characteristics

___1. Displays a great deal of curiosity
___2. Generates a large number of solutions to problems and questions
___3. Is sometimes radical and spirited in disagreement
___4. Keen sense of humor
___5. Is non-conforming, does not fear being different
___6. Is unwilling to accept authoritarian statements without critical examination
___7. Fantasizes, imagines, manipulates ideas

Creativity Total_____

Leadership Characteristics

___1. Carries responsibility well, can be counted on
___2. Self-confident with children his own age as well as adults
___3. Can express himself well, is easily understood
___4. Adapts readily to new situations, does not seem disturbed when routine is changed
___5. Seems to enjoy being around others; prefers not be alone
___6. Generally directs the activity in which he is involved
___7. Is involved in many school and outside of school activities (patrol, sports, scouts, choir, piano lessons, Y, etc.)

Leadership Total_____

	Superior	Very Good	Good	Average	Below Average
1. Art					
2. Music					
3. Drama					

RENZULLI IDENTIFICATION FORM FOR THE GIFTED AND TALENTED

Name_____ Grade____ Date of Report_____ Teacher_____

Check characteristics which you have often observed in your work with this youngster.

I. Learning

___ 1. Unusually advanced vocabulary
___ 2. Possesses a large storehouse of information
___ 3. Quick mastery and recall
___ 4. Has insight into cause-effect relationships
___ 5. Keen observer
___ 6. Reads a great deal on own; does not avoid difficult material
___ 7. Sees logical and common sense answers to problems
___ 8. Grasps underlying principles and makes valid generalizations

Learning Total _____

II. Motivational

___ 1. Easily bored with routine tasks
___ 2. Needs little external motivation to follow through on tasks
___ 3. Strives toward perfection
___ 4. Prefers to work independently
___ 5. Is interested in "adult" problems (religion, politics, race, etc.)
___ 6. Often self-assertive; stubborn in beliefs
___ 7. Likes to organize and bring structure to things
___ 8. Is persistent in seeking task completion
___ 9. Is quite concerned with right and wrong, often judges events and people

Motivational Total _____

III. Creativity

___ 1. Displays a great deal of curiosity
___ 2. Generates a large number of solutions to problems and questions
___ 3. Is sometimes radical and spirited in disagreement
___ 4. Keen sense of humor
___ 5. Is non-conforming, does not fear being different
___ 6. Is unwilling to accept authoritarian statements without critical examination
___ 7. Fantasizes, imagines, manipulates ideas
___ 8. Is sensitive to beauty
___ 9. Is unusually aware of own impulses

Creativity Total _____

IV. Leadership

___ 1. Carries responsibility well, can be counted on
___ 2. Self-confident with children his own age as well as adults
___ 3. Can express himself well, is easily understood
___ 4. Adapts readily to new situations, is not disturbed when routine is changed
___ 5. Seems to enjoy being around others; prefers not to be alone
___ 6. Generally directs the activity in which he is involved
___ 7. Is involved in many school and outside of school activities (patrol, sports, choir, piano lessons, Y, etc.)
___ 8. Is cooperative with teacher and classmates
___ 9. Seems to be well liked by classmates
___ 10. Participates in most social activities connected with the school

Leadership Total _____

V. Artistic

___ 1. Likes to participate in art activities
___ 2. Incorporates a large number of elements into art work
___ 3. Arrives at unique, unconventional solutions to artistic problems as opposed to traditional, conventional ones
___ 4. Concentrates for long periods of time on art projects
___ 5. Willingly experiments with a variety of materials and techniques
___ 6. Tends to select art media for free activity or classroom projects
___ 7. Is a keen observer, sees what is often overlooked by others
___ 8. Produces balance and order in art work
___ 9. Is critical of own work, sets high standards of quality
___ 10. Shows an interest in other student's art work
___ 11. Elaborates on ideas from other people, but does not copy them

Artistic Total _____

VI. Musical

___ 1. Seeks out opportunities to hear and create music
___ 2. Perceives fine differences in musical tone (pitch, loudness, timbre, duration)
___ 3. Easily remembers melodies and can produce them accurately
___ 4. Eagerly participates in musical activities
___ 5. Plays a musical instrument (or indicates a strong desire to)
___ 6. Is sensitive to the rhythm of the music, responds through body movements
___ 7. Is aware of and can identify a variety of sounds heard at a given moment

Musical Total _____

VII. Communication Expressiveness

___ 1. Uses voice expressively to convey or enhance meaning
___ 2. Conveys information non-verbally through gestures, facial expressions, and "body language"
___ 3. Is an interesting storyteller
___ 4. Uses colorful and imaginative figures of speech such as puns and analogies

Communication Expressiveness Total _____

VIII. Dramatics

___ 1. Volunteers to participate in classroom play or skits
___ 2. Easily tells a story or reports an experience
___ 3. Effectively uses gestures and facial expressions to communicate
___ 4. Is adept at role-playing, improvising, acting out situations "on the spot"
___ 5. Can readily identify ownself with the moods and motivations of characters
___ 6. Handles body with ease and poise for own particular age
___ 7. Creates original plays or makes up plays from stories
___ 8. Commands and holds the attention of a group when speaking
___ 9. Is able to evoke emotional responses from listeners
___ 10. Can imitate others - is able to mimic the way people speak, walk, gesture

Dramatics Total _____

IX. Communication Precision

___ 1. Speaks and writes directly and to the point
___ 2. Modifies and adjusts expression of ideas for maximum reception
___ 3. Is able to revise and edit in a concise way
___ 4. Explains things precisely and clearly
___ 5. Uses descriptive words to add color, emotion, and beauty
___ 6. Expresses thoughts and needs clearly and concisely
___ 7. Can find various ways of expressing ideas so others will understand
___ 8. Can describe things in a few very appropriate words
___ 9. Is able to express fine shades of meaning by use of
___ 10. Is able to express ideas in a variety of ways
___ 11. Knows and can use many words closely related in meaning

Communications Precision Total _____

X. Planning

___ 1. Determines what resources are necessary for accomplishing a task
___ 2. Grasps the relationship of individual steps to the whole process
___ 3. Allows time to execute all steps involved in a process
___ 4. Foresees consequences or effects of actions
___ 5. Organizes work well
___ 6. Takes into account the details necessary to anticipate several moves ahead
___ 7. Is good at strategy games requiring planning several moves ahead
___ 8. Recognizes the various alternative methods for accomplishing a goal
___ 9. Can pinpoint where difficulty might arise
___ 10. Arranges steps of a project in a sensible order or time sequence
___ 11. Is good at breaking an activity into step by step procedures
___ 12. Establishes priorities when organizing activities
___ 13. Shows awareness of limitations in time, space, materials, and
___ 14. Can contribute to the development of a plan or procedure
___ 15. Sees alternative ways to distribute work to accomplish a task

Planning Total _____

Adapted from Renzulli, Hartman, Callahan Scale for Rating Behavioral Characteristics of Superior Students. Exceptional Children Volume 38, 1971. pp. 211-214, 243-248.

SELECTION CRITERIA FOR SPECIFIC OMNIBUS UNITS TAUGHT IN A REVOLVING DOOR TYPE PROGRAM

(It is recommended that objective criteria scores be doubled before arriving at total scores).

Primary Units

UNIT	OBJECTIVE CRITERIA Standardized Test Results	SUBJECTIVE CRITERIA Renzulli Checklists
I. City Planning	Intelligence Test (if available) Reading Achievement Work Study Skills Achievement Social Studies Achievement	Learning Motivation Communication - Precision Planning Characteristics Creativity Artistic
II. Communications Media	Intelligence Test (if available) Reading Achievement Language Arts Achievement	Learning Motivation Planning Characteristics Communication - Expressiveness Communication - Precision
III. Economics	Intelligence Test (if available) Reading Achievement Math Achievement Language Arts Achievement	Learning Motivation Creativity Planning Characteristics
IV. Music	Intelligence Test (if available) Math Achievement Reading Achievement	Motivation Learning Musical Communication - Expressiveness Personal Recommendations Creativity

V. Animal Behavior	Intelligence Test (if available) Reading Achievement Science Achievement Work Study Skills Achievement	Learning Motivation Creativity Artistic Planning Characteristics
VI. World Mythologies	Intelligence Test (if available) Reading Achievement	Motivation Learning Planning Characteristics Communication - Precision Creativity
VII. The Ancients	Intelligence Test (if available) Reading Achievement Social Studies Achievement	Learning Motivation Artistic Communication - Expressiveness Leadership
VIII. The Wheather	Intelligence Test (if available) Reading Achievement Science Achievement	Learning Motivation Creativity Planning Characteristics
XI. Famous Cities	Intelligence Test (if available) Reading Achievement	Motivation Learning Communication - Precision Creativity Planning Characteristics

Intermediate Units

UNIT	OBJECTIVE CRITERIA Standardized Test Results	SUBJECTIVE CRITERIA Renzulli Checklists
I. Cultural Anthropology	Intelligence Test (if available) Reading Achievement Social Studies Achievement	Learning Motivation Creativity
II. The Law	Intelligence Test (if available) Reading Achievement Social Studies Achievement Work Study Skills Achievement	Learning Motivation Leadership Communication - Precision Planning Characteristics
III. Mysteries and Codes	Intelligence Test (if available) Reading Achievement	Learning Motivation Planning Characteristics
IV. Theater Arts	Reading Achievement	Motivation Dramatic Characteristics Personal Recommendations Creativity Communication - Expressiveness Leadership
V. Aerodynamics	Intelligence Test (if available) Reading Achievement Science Achievement	Learning Motivation Planning Characteristics Creativity
VI. Genetics	Intelligence Test (if available) Reading Achievement Science Achievement Math Achievement	Learning Motivation Creativity Planning Characteristics

VII. Dissection	Intelligence Test (if available) Science Achievement	Learning Motivation Planning Characteristics Leadership Creativity
VIII. Sound	Intelligence Test (if available) Reading Achievement Science Achievement Math Achievement	Motivation Leadership Planning Characteristics Creativity
IX. Artists and Imagination	Work Study Skills Achievement Reading Achievement	Motivation Artistic Personal Recommendations Communication - Precision
X. The Future	Intelligence Test (if available) Reading Achievement Social Studies Achievement	Motivation Learning Communication - Expressiveness Creativity
XI. Olitical Satire and Cartooning	Intelligence Test (if available) Reading Achievement	Creativity Artistic Personal Recommendations Motivation Planning Characteristics
XII. Earth Science	Intelligence Test (if available) Science Achievement Reading Achievement	Learning Motivation Planning Characteristics Artistic Creativity

XIII. Differences of Opinion	Intelligence Test (if available) Reading Achievement Math Achievement Social Studies Achievement Work Study Skills Achievement	Learning Motivation Leadership Communication - Experessiveness Planning Characteristics
XIV. Thinking and Learning	Intelligence Test (if available) Science Achievement	Learning Motivation Planning Characteristics Creativity Communication - Precision
XV. Architecture	Intelligence Test (if available) Reading Achievement Math Achievement	Learning Motivation Creativity Planning Characteristics Artistic Personal Recommendations

Worksheet for Selecting Students for Gifted Programs

Student _____ Grade _____ Program _____

	Scores				
I. Intelligence Tests	140+	130-139	120-129	111-119	100-110
	98% ile	95-97% ile	90-94% ile	85-89% ile	50-84%ile
II. Achievement Test Composite Scores					
III. Achievement Scores					
IV. Teacher Recommendations					
A. Renzulli Scales					
1. Learning	8-7	6-5	4-3	2	1-0
2. Motivation	9-8	7-5	6-4	3-2	1-0
3. Creativity	10-9	8-7	6-4	3-2	1-0
4. Leadership	10-9	8-7	6-4	3-2	1-0
5. Artistic Ability	11-10	9-8	7-5	4-2	1-0
6. Musical Ability	7	6-5	4-3	2	1-0
7. Communication-expressive	4	3	2	1	0
8. Dramatic Talent	10-9	8-7	6-4	3-2	1-0
9. Communication-precision	11-9	8-7	6-4	3-2	1-0
10. Planning Ability	15-13	12-9	8-5	4-2	1-0
B. Written Recommendations	Superior	Very Good	Good	Average	Below
Art					
Music					
Drama					
Other					

SAMPLE VISUAL ARTS IDENTIFICATION CHECKLIST

The student gifted in the visual arts is, in general, able to formulate complex and interesting problems to which is applied a rich, open process of material manipulation and thought evolution, moving toward clean, distilled, energetic solutions. He or she:

___ 1. Combines various art media to express ideas and feelings.

___ 2. Is willing to try out new materials and experiences.

___ 3. Shows an uncommonly high interest in visual arts activities.

___ 4. Indicates ability to perceive form, contrast and mood in the physical environment.

___ 5. Shows originality in choice of subject techniques and composition.

___ 6. Makes up original art products.

___ 7. Shows elaboration and depiction of details.

___ 8. Demonstrates excellence in many aspects of art including color, form, grouping, movement.

___ 9. Exhibits superior manual skills.

___ 10. Indicates independence of ideas and ability to experience events from multiple points-of-view.

___ 11. Is highly adaptable in thought and activity.

___ 12. Shows good concentration and flexibility in adaptation of knowledge.

___ 13. Shows dynamic and intuitive quality of imagination.

___ 14. Shows persistence, perseverance, enthusiasm and self-motivation

___ 15. Exhibits willingness to explore and use new media tools and techniques.

___ 16. Demonstrates acute power of visualization and fascination with visual things.

SAMPLE IDENTIFICATION CHECKLISTS

1. **Creative Writing - The pupil:**
   - Seeks to express feelings, ideas and images through writing.
   - Demonstrates an original and authoritative use of language.
   - Is highly sensitive to the sound, rhythm and connotations of language.
   - Is eager to experiment with many forms of language -- short stories, poems, plays and essays.
   - Displays keen observation, and has a strong visual and/or aural memory -- can remember exactly the way a scene looked, or what was said.
   - Displays an uncommonly high, sustained interest in literature and in creative writing activities.
   - Is eager to read his or her writing to the class.
   - Is able to concentrate for a long period of time on one piece, and is willing to rewrite to make the piece successful.
   - Easily incorporates the voice, style or concerns of other writers into his or her own writing.
   - Can quickly and articulately characterize other people, and is fascinated with (and may successfully mimic) the way other people speak.

2. **Drama - The pupil:**
   - Has a sense of humor about self. This implies a certain ability to remove oneself from the situation and analyze the components.
   - Seeks concrete embodiment through presentational means, that is, responds to acting out the artist's statement in behaviors and conflects, resolved through acting out, rather than through other arts means.
   - Seeks way to apply words, to visualize, to musicalize, in space for an audience, to understand a statement.
   - Looks upon his/her own body as an instrument of expression.
   - Seeks from all presentational aspects, scenery, lights, costumes and so forth, a further extension of that instrument.
   - Uses voice effectively.
   - Uses gestures and facial expressions to communicate feelings.
   - Is eager to participate in classroom plays.
   - Is aware of techniques used to evoke emotional resposes from listeners - can get people to laugh, frown, feel tense.
   - Shows a sense of timing when moving a dramatic piece to a climax and a conclusion.

3. **Dance - The pupil:**
   - Seeks to express concepts through use of body in space.
   - Uses movement to recreate an emotion or environment.
   - Is able to explore in movement.
   - Is able to think of many ways of solving movement problems.
   - Uses body movement frequently and easily.
   - Displays grace and fluidity of movement.
   - Responds with movement to changes in stimuli.
   - Shows an uncommonly high interest in dance and/or creative movement activities.
   - Is sensitive to own body.
   - Is responsive to direction and correction.
   - Is able to incorporate correction/images into body.

SAMPLE MECHANICAL CHARACTERISTICS CHECKLIST

1. Possesses unusual manipulative skills and spacial ability

2. Perceives a visual pattern complete with details, similarities, and differences

3. Excels on craft projects

4. Interested in mechanical gadgets, devices, machines

5. Comprehends mechanical problems and puzzles

6. Likes to draw plans and sketches of mechanical objects

SAMPLE SCIENTIFIC CREATIVITY CHARACTERISTICS CHECKLIST

1. Student shows evidence of independent thinking. His or her reponses to questions or practical problems may not follow the predictable or normal pattern of the class.

2. Student solves problems in unusual, but in efficient and often successful ways. Student is willing to try to improve upon the proven or textbook method.

3. Student's satisfaction is in reaching the desired goal and in producing results, in addition to reproducing the techniques by which they are attained.

4. Student's mind questions the truth of statements he or she is taught. Student wants to test them out and to prove that the scientific theory works in fact.

5. When confronted by a new phenomenon, student is challenged by it and actively tries to account for it.

6. This student may or may not be one who gets the highest grades. The ability to prepare well for exams is not, by itself, a pre-requisite for becoming a creative scientist.

SAMPLE CREATIVE WRITING CHARACTERISTICS CHECKLIST

1. Maintains consistent mechanical accuracy
2. Is highly motivated to write
3. Effectively organizes materials
4. Is familiar with a variety of types of writing
5. Uses figures of speech and a variety of sentence patterns
6. Writes on an appropriate level of usage
7. Accepts and benefits from criticism
8. Produces a unified work
9. Is a sensitive and empathetic observer
10. Possesses extensive self-knowledge
11. Is curious, often interested in a particular topic(s)
12. Widely read
13. Has extensive vocabulary

HILL GIFTED/TALENTED MAGNET SCHOOl, ST. PAUL (1)
(GRADES 1-6)

Assessment Process (Screening/Assessment Committee)

1. Assessment of General Intelligence

   A. Administration of group intelligence test to all candidates - scores on these measures must be at approximately the 90th percentile

   B. Review of "checklist of community coping skills" - (documenation of unusual ability of student from culturally different background to cope with demands of present environment)

2. Assessment of Achievement

   A. Group achievement testing of students entering first and second grade

   B. Review of achievement test data for students entering third grade or above

   C. Review of high potential student referral form

Final Selection Process

1. "Pool" Composed of

   A. Students who score high on achievement and ability tests

   and/or

   B. Students whose behaviors as reflected by the checklist of community coping skills, and the high potential student referral form indicate high ability and high academic potential

2. Proportional random selection of majority, minority, and handicapped students until available slots are filled by grade level. The grade levels of the school shall be as equally represented in number as possible.

FACTORS FOR TEACHERS TO CONSIDER IN RECOMMENDING STUDENTS FOR PROGRAM

Culturally different background factors - Explain:

Handicapping factors (e.g., hearing impaired, speech, etc.)

Comments

Do you strongly recommend that this student be placed in the Gifted and Talented Magnet Program? _____ Yes _____ No

I do/do not recommend placement because:

HILL MAGNET FORM, ST. PAUL (2)

High Potential Student Referral Form

1. ___ a significant difference between classroom performance and performance on wide-range achievement tests (explain)_____

_____

2. ___ seems inattentive, bored with typical school requirements, but "comes alive" and demonstrates excellent comprehension and reasoning when special topics are raised, e.g., old movies, Watergate, life on other planets (explain)_____

_____

3. ___ critical of conventional behavior (explain)_____

_____

4. ___ high absenteeism, but keeps up with grades despite missing much formal teaching (explain)_____

_____

5. ___ self-taught in some topics not often taught in school (explain)_____

_____

6. ___ one-sided about some subjects (deep interest to exclusion of all else) (explain)_____

_____

7. ___ verbalizes with skill and insight on a wide range of topics, but avoids writing (explain)_____

_____

8. ___ may be a perfectionist to the degree that it interferes with the completion of assignments and, therefore, is viewed as low performance (explain)_____

_____

HILL MAGNET FORM - ST. PAUL (3)

This form should be completed when the academic record of a student from a culturally different background is not strong, but there is indication of potential to excel.

Checklist of Community Coping Skills

(to assist in determining if the student demonstrates unusual ability to cope with his/her present environment)

Place a check ( ) before those statements which apply.

____ Unusual oral ability (poetry, choral speaking, rhetoric at a level far beyond his/her peer group)

____ Sees the double meaning (puns) and nuances between two languages he/she uses

____ Speaks standard English and conforms to school achievement priorities, yet is able to function in second language or dialect at home and the community very well

____ When confronted by unique home situations (responsibility for budgeting, making family meals, babysitting, earning money, being "street-wise") he/she is able to cope at a very mature level

____ Responds to art, music, dance, sound-type experiences related to his/her heritage with unusual depth and understanding

____ Performs mechanical (machine-type) tasks with little or no training at home or school

____ Needs to know and understand the mechanism and operation of machinery which is foreign to him/her

____ Frequently asks for concrete examples of highly abstract concepts, e.g., honest, justice, patriotism

____ Concerted effort put into researching and gaining extensive knowledge about some hero related to his/her culture (Roberta Flack, Cesar Chavez, Dennis Banks, Martin Luther King, Pele, and Gandhi)

____ An unorthodox collector (related to cultural heritage) but not necessarily a school valued activity, e.g., records, photographs from magazines, statistical data (baseball cards) - a vast storage of information on people, places or things

____ Is very competent in his/her social roles in the family and community but may not do well academically or socially in the classroom structure

____ Maintains his/her unique identity while functioning very well in an American social structure

____ Shows stability and maturity when dealing with a communication problem

HILL MAGNET FORM - ST. PAUL (4)

Reading Level

Houghton Mifflin Book Title _____
Other Basal Program _____

Student Performance

Please assess this student's performance in all of the categories listed below by checking the appropriate space.

	OUTSTANDING	VERY GOOD	AVERAGE	BELOW AVERAGE	POOR
Ability to Analyze					
Written/Oral Communication					
Curiosity					
General Knowledge					
Intelligence					
Mathematics					
Organization					
Problem Solving					
Critical Thinking					
Reading					
Mechanical					
Science					
Social Studies					
Ability to Generate Ideas					
Visual Arts					
Performing Arts					
Athletic					
Acceptance of Change					
Cooperation					
Industriousness					
Leadership					
Responsibility					
Self-Concept					
Self-Directedness					
Sensitivity Toward Others					
Creativity					
Imagination					

Thank you for your cooperation!

Signature of Referring Person _____ Date _____ Principal's Signature _____ Date _____

HILL MAGNET FORM - ST. PAUL (5)
Parent Referral

Dear Parents:

The following information is needed as part of the data necessary for your child to be considered as a potential student for a gifted/talented program. Please complete and return this information within the next few days.

_____
Principal

Student Name _____ Birthdate _____ Date _____
School _____ Teacher _____ Grade _____

Check the following items as best describes your child as you see him or her.

	Little	Some	A Great Deal
1. Is alert beyond her/his years			
2. Has interests of older children in games and reading			
3. Sticks to a project once it is begun			
4. Has many different ways of solving problems			
5. Wants to know how and why			
6. Other children look up to or call him/her to initiate play activities			
7. Asks a lot of questions about a variety of subjects			
8. Is able to plan and organize activities			
9. Others seek his/her company			
10. Gets other children to do what he/she wants			
11. Enjoys other people and seeks them out			
12. Sets high standards for self			
13. Is able to laugh at self (if necessary)			
14. Likes to do many things and participates whole-heartedly			
15. Likes to have his/her ideas known			
16. Uses common materials in new and different ways			
17. Likes to work on hard projects			
18. Other people think she/he is smart			
19. Is good at talking about ideas			
20. Is good at talking and convincing people about his/her ideas			
21. Is sensitive to the interests and feelings of others			

Other comments: _____
_____
_____

Parent Signature _____

Date _____

SAMPLE PARENT IDENTIFICATION CHECKLIST

Name of Student _____

Parent/Guardian Signature _____

To help us identify children who might benefit from the program, please check the descriptions which apply to your child, or which are unusally true.

___1. Early development of motor skills (walking, running, buttoning, tying, etc.)

___2. Early language development (talking, using sentences, telling stories).

___3. Has unusually large vocabulary.

___4. Interacts easily with adults and other children.

___5. Curious, investigative, asks many questions (actively interested in people and/or things).

___6. Unusually good memory for facts, details, and experiences.

___7. Many and unusual interests, hobbies (unusual relative to age group).

___8. Loves books, reading, and/or being read to by others; reads materials uncommon for age.

___9. Able to concentrate for long periods; persistent.

___10. Enjoys challenge; easily motivated to try something difficult or different.

___11. Independent in initiating activities; can occupy self easily and creatively.

___12. Uses toys, equipment, common objects in unusual, creative ways.

___13. Highly individualistic (ideas, attitudes).

___14. Early development of self-help and caretaking skills.

___15. Tends to have friends who are older.

___16. Seems to have an unending supply of energy.

___17. Seems socially mature and perceptive.

___18. Complains school is boring.

___19. Has displayed exceptional talent in one or more areas (music, art, drama, dance, sports, science, etc.)

___20. Has a mature sense of humor (puns).

In addition to areas covered above, describe any outstanding characteristics, talents, or abilities which you feel apply to your child. You may continue on reverse side of page.

TEACHER
SAMPLE IDENTIFICATION CHECKLIST

Name _____ Age _____ Date _____

School _____ Grade _____

Person completing this form _____ Relationship to student _____

Please rate the student on the following characteristics by placing the appropriate number in the corresponding column.

1. If you have seldom or never observed this characteristic. (no more than once a month)
2. If you have observed this characteristic occasionally. (1-4 times a month)
3. If you have observed this characteristic a considerable degree. (1-3 times a week)
4. If you have observed this characteristic almost all of the time. (4 or more times a week)

Place the total of all the numbers in each column in the box.

CHARACTERISTICS	1	2	3	4
1. Has unusually good vocabulary.				
2. Has ideas which are often very original and imaginative in one or more areas (i.e., block play, free activities, charing).				
3. Is alert and keenly observant; responds quickly.				
4. Has an unusually good memory.				
5. Has a long attention span.				
6. Uses longer sentences.				
7. Reasons things out; thinks clearly; recognizes relationships; comprehends meanings.				
8. Is curious about many activities and places outside immediate environment.				
9. Is widely informed in a variety of areas.				
10. Shows high level of sensitivity, empathy.				
11. Has an excellent sense of humor.				
12. Is an independent worker, shows initiative.				
13. Has a variety of interests; versatile.				
14. Is a leader in several kinds of activities; is able to influence others to work toward desirable goals.				
15. Has outstanding talent in a special area(s) such as art, music, rhythms, dramatics (indicate area(s) of talent).				
16. Is able to decode (1) sounds, (2) words, (3) sentences, (4) stories.				
Column Totals		+	+	+ = ____

I consider this student, as a candidate for a gifted/talented program, to be:

_____ Superior _____ Very Good _____ Average _____ Below Average

COMMENTS: Please include any appropriate anecdotes about the student, reports on special projects, amplifications of the characteristics rated, qualifiers to your recommendation, etc.

SAMPLE TEACHER IDENTIFICATION CHECKLIST
(2-6)

Name _____ Age _____ Date _____

School _____ Grade _____

Person completing this form _____ Relationship to student _____

Please rate the student on the following characteristics by placing the appropriate number in the corresponding column.

1. If you have seldom or never observed this characteristic. (no more than once a month)
2. If you have observed this characteristic occasionally. (1-4 times a month)
3. If you have observed this characteristic a considerable degree. (1-3 times a week)
4. If you have observed this characteristic almost all of the time. (4 or more times a week)

Place the total of all the numbers in each column in the box.

CHARACTERISTICS	1	2	3	4
1. Has unusually good vocabulary.				
2. Has quick mastery and recall of factual information.				
3. Has lots of information on a variety of topics.				
4. Is alert and observant (usually sees more or gets more out of a story, film, etc. than others).				
5. Reads a great deal on his/her own.				
6. Reasons things out, recognizes relationships, comprehends meanings and makes logical associations.				
7. Works persistently on things that interest him/her.				
8. Is easily bored with routine tasks.				
9. Prefers to work independently, requires little direction from teachers.				
10. Strives for perfection, is self-critical.				
11. Often is self-assertive, may be stubborn in his/her beliefs.				
12. Is curious about many things, asks questions about anything and everything.				
13. Reveals originality in written, oral, artistic expression.				
14. Offers unusual, unique or clever answers.				
15. Is uninhibited in giving opinions.				
16. Is often concerned with different ways of doing "things" (will modify, improve or adapt).				
17. Displays a keen sense of humor.				
18. Non-conforming; accepts disorder; does not fear being different.				
Column Totals		+	+	+ = ____

I consider this student, as a candidate for a gifted/talented program, to be:

_____ Superior _____ Very Good _____ Average _____ Below Average

COMMENTS: Please include any appropriate anecdotes about the student, reports on special projects, amplifications of the characteristics rated, qualifiers to your recommendation, etc.

The Fox Matrix for Selecting Options

Directions:
List goals across top in 1,2,3,4,5.
List current and proposed options down left column.
Pre-evaluate using key to determine how well each option satisfies each goal.

KEY
† Fulfills the goal
* May partially fulfill goal
? Would depend upon specifics of situation
- Does not fulfill the goal

POSSIBLE PROGRAM OPTIONS	1.	2.	3.	4.	5.
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

MINNESOTA TALENT SEARCH

Minnesota's public and private districts are participating in the annual Minnesota Talent Searches. The purpose of the search is to identify those students who have high mathematical and/or verbal abilities and to offer such students additional program opportunities. MTS students will have an opportunity to participate in summer courses which are conducted throughout Minnesota by community colleges, state universities, the University of Minnesota, local districts, etc.

The identification instrument will be the Scholastic Aptitude Test (SAT), normally administered to high school juniors and seniors. This program is similar to annual Talent Searches conducted at the Johns Hopkins University, Duke University and Northwestern. Research at Johns Hopkins University has indicated that an ideal stage for the identification of high level talent is the seventh or eighth grade level or from ages twelve to fourteen. This is the period at which complex, formal operational thought processes emerge in precocious youth. It is also an ideal stage to introduce accelerated learning experiences for youngsters who exhibit high level talent in mathematics, science, and language arts.

Students participate by taking the SAT in the regularly scheduled SAT test locations for high school students throughout Minnesota. Students presently in grades 7-9 are eligible if they have scored at the 95th percentile or better on either the math or verbal portions of a national standardized in-grade achievement test administered in the local school district or who have taken part in a district program for gifted or high potential students. The most recent or next most recent scores available may be used. Principals, guidance counselors, coordinators of gifted programs or teachers who wish to nominate specific students for the Minnesota Talent Search should obtain an official SAT registration form for each candidate from their local high school counselor. Details about the testing are found in the October and November issues of the Minnesota Department of Education Update.

THE ALBERT SCHWEITZER PROGRAM

Gifted and talented students should put their problem solving abilities to work on one or more Albert Schweitzer Program projects each year in order to experience the same inner joy and satisfaction that Dr. Schweitzer found in his long service to humanity.

Each gifted and talented student in grades one through twelve is encouraged to identify a need in his or her own community (home, school, neighborhood or town) and either individually or with others serve that need. These student-designed projects will be conducted outside of school hours.

The reason for naming this program after Dr. Schweitzer is exemplified in his response in 1953 to nursing students who requested a motto for their class:

> "Let the word 'service' accompany each of you through your life. Let it be before you as you seek your way and your duty in the world. It will lead you to happiness no matter what the experiences of your life are. And may it teach you not only to do good but to do it simply and humbly."

The Albert Schweitzer Handbook, which includes forms and aids for the teacher, may be obtained from the Program Specialist in Gifted Education at the Minnesota Department of Education.

PROACTIVE COUNSELING PROGRAM (7-12)

St. Louis Park High School - Joel G. Anderson, Pro-active counselor

It is a pull-out program of support groups which meet one hour per week in a program that stresses individual counseling and programmatic experiences.

Student Selection Criteria:

Intelligence tests (WISCR and C.A.T.)
Achievement tests (composite) (SRA and ITED)
Reading comprehension (Gates and ITED)
Class rank
Teacher recommendations - (5 or more)

Curriculum

Topics covered include but are not limited to:

- Values clarification
- Creative problem-solving
- Death and dying
- Productive thinking skills
- Communication skills - active listening
- Learning styles
- Readership styles
- Human sexuality
- Odyssey of the Mind

PART-TIME RESOURCE CLASS FOR UNDERACHIEVING GIFTED STUDENTS

1. A group of fifth and sixth graders meets at one school and a group of fourth and fifth graders at the other school. These groups meet for two half-hour periods per week. This program has been in existence since 1977 in Saddle River, New Jersey and progress is evident in the fact that many have moved into the regular gifted program. The curriculum includes thinking skills, creativity, and self-awareness with a strong emphasis on open discussions about current issues, decision-making and personal problem-solving.

   The students involved display at least one or more of the following characteristics: poor self-esteem; emotional difficulties; inability to persevere; extreme divergent thinking; inability to set goals; inadequate achievement on standardized testing, commensurate with ability; inappropriate classroom productivity, commensurate with ability; difficulty in relating to peers; and difficulty in dealing with real life situations.

   Small groups are scheduled for short meetings in order to minimize frustration of "missing work" in the classroom and to provide an unintimidating environment for the sharing of feelings and ideas.

   Combining youngsters of different grade levels creates a superior role for the older child and assists the younger students in developing confidence by being able to relate to an older pupil in academic activities.

   Experiences in critical, logical, and productive thinking exist in an environment without grades and without "super-student" competition. Opportunities are provided to stimulate and develop interest in self-motivating activities; to create a desire to share and contibute comfortably; to develop those academic areas which are weak in proportion to the youngster's ability through the use of materials carefully selected to be non-classroom oriented nor skill builders.

   Very crucial is assisting the child in understanding his or her "style of thinking" - convergent vs. divergent - and more important - <u>being comfortable with it</u>. However, if a youngster is extremely divergent in his or her thinking, he or she would understand that this is "O.K.", but will learn to converge this thinking and develop logical thinking when it is necessary or required.

   When progress becomes apparent, one of the two sessions each week becomes an opportunity for the student to practice assuming responsibility and making decisions regarding his or her own learning by setting goals and planning in what activities he will participate for that day.

   Evaluation is accomplished by individual pupil-teacher conference.

AFFECTIVE DEVELOPMENT THROUGH THE CURRICULUM

Educational planning for the affective development of gifted pupils, like the planning for cognitive development, must stem from the characteristics of the children to be served, and the special needs implied by those characteristics.

Differential affective characteristics of the gifted:

- large accumulation of information about emotions that has not been brought to awareness.
- unusual sensitivity to the expectations and feelings of others.
- keen sense of humor - may be gentle or hostile.
- heightened self-awareness, accompanied by feelings of being "different."
- idealism and a sense of justice that appear at an early age.
- earlier development of an inner locus of control and satisfaction.
- advanced levels of moral judgment.
- high expectations of self and others, which often lead to high levels of frustration with self, others, and situations.
- unusual emotional depth and intensity.
- sensitivity to inconsistency between ideals and behavior.

Behavioral objectives in the affective domain have been organized by Krathwohl and his colleagues.

Sample program provisions in the affective domain

A. Awareness
   1. Opportunities to identify and name one's own emotions.
   2. Opportunities to identify one's own perceptual filters and defense systems, and those of others.
   3. Opportunities to expand and to clarify awareness of the physical, social and emotional environment.

B. Receiving
   1. Experiences and instruction in attitudes of receptivity and suspended judgment.
   2. Opportunities and support for actively seeking ideas and feelings from others.

C. Responding
   1. Opportunities and support for communicating personal expressions in a variety of ways.
   2. Opportunities to identify, establish, and participate in environments in which personal responses are invited, encouraged, and valued.

D. Valuing
   1. Opportunities and instruction in constructing and clarifying personal values.
   2. Opportunities and support for expressing personal values including caring, caring for, and caring about.

E. Integration into a value structure
   1. Opportunities to identify a variety of value systems.
   2. Opportunities to clarify short-term goals and examine them in relation to personal values and to achievability.
   3. Support for making a personal value system the foundation for career choice, including encouragement for discovering the student's own vocation, in the sense of that which one is called to do.

Clark, 1979

CURRICULUM CHART OF MODIFICATIONS BASED ON GIFTED UNIQUE STUDENTS' LEARNING CHARACTERISTICS

LEARNING CHARACTERISTICS	CONTENT							PROCESS/METHOD								PRODUCT				LEARNING ENVIRONMENT					
	Abstractness	Complexity	Variety	Organization	Economy	Study of People	Methods of Inquiry	Higher-level Thought	Open-endedness	Discovery	Proof-Reasoning	Freedom of Choice	Group Interaction	Pacing	Variety	Real Problems	Real Audience	Evaluation	Transformation	Student-Centered	Encourages Independence	Openness	Acceptance	Complex	High Mobility
1. Keen power of abstraction, willingness to examine the unusual	X	X	X	X	X			X	X	X												X		X	
2. Ability to abstract; conceptualize interest in problem solving and applying concepts	X	X			X	X		X	X	X	X					X	X	X		X	X	X	X	X	X
3. Interest in cause-effect relations	X	X	X	X	X	X		X	X	X	X			X		X	X			X	X	X	X	X	X
4. Early reader and frequently a voracious one	X	X	X	X		X		X				X						X			X			X	X
5. Large vocabulary facility in expression	X	X	X					X			X							X		X				X	X
6. Questioning attitude, intellectual curiosity			X									X		X		X				X	X	X	X	X	X
7. Power of critical thinking, skepticism, self-criticism						X		X	X									X			X	X	X		
8. Creativeness and inventiveness; a liking for new ways of doing things			X					X	X	X									X	X	X	X	X	X	
9. Powers of concentration, long attention span	X	X		X					X			X				X				X	X	X		X	X
10. Persistant, goal-directed behavior, intrinsic motivation			X						X		X					X				X	X	X		X	
11. Sensitivity, empathy for others, need for emotional support						X						X	X		X			X			X	X	X		
12. High energy, alertness and eagerness			X				X	X	X				X								X				X
13. Independence in work and study, preference for individualized work			X				X		X	X								X		X	X	X			X
14. Diversity of interests and abilities	X	X	X	X				X						X		X	X		X	X	X			X	X

Adapted from: Maker, C. June, "Curriculum Development for the Gifted," Aspen System Corp., 1982.

It is important to remember that gifted and talented students will not posses just one or all of these learning characteristics, but usually exhibit a combination. The way in which curriculum is differentiated for these students will depend heavily on the individual student's strengths and needs.

CURRICULUM CHART OF MODIFICATIONS BASED ON GIFTED UNIQUE STUDENTS' LEARNING CHARACTERISTICS

LEARNING CHARACTERISTICS	CONTENT								PROCESS/METHOD								PRODUCT				LEARNING ENVIRONMENT					
	Abstractness	Complexity	Variety	Organization	Economy	Study of People	Methods of Inquiry	Higher-level Thought	Open-endedness	Discovery	Proof-Reasoning	Freedom of Choice	Group Inter-Action	Pacing	Variety	Real Problems	Real Audience	Evaluation	Transformation	Student-Centered	Encourages Independence	Openness	Accepting	Complex	High Mobility
1. Keen power of abstraction, willingness to examine the unusual																									
2. Ability to abstract; conceptualize interest in problem solving and applying concepts																									
3. Interest in cause-effect relations																									
4. Early reader and frequently a voracious one																									
5. Large vocabulary facility in expression																									
6. Questioning attitude, intellectual curiosity																									
7. Power of critical thinking, skepticism, self-criticism																									
8. Creativeness and inventiveness; a liking for new ways of doing things																									
9. Powers of concentration, long attention span																									
10. Persistent, goal-directed behavior, intrinsic motivation																									
11. Sensitivity, empathy for others, need for emotional support																									
12. High energy, alertness and eagerness																									
13. Independence in work and study, preference for individualized work																									
14. Diversity of interests and abilities																									

Adapted from: Maker, C. June, "Curriculum Development for the Gifted," Aspen System Corp., 1982.

Curriculum Activities Using Bloom's Taxonomy

Knowledge	Comprehension	Creative Thinking	Application	Analysis	Synthesis	Evaluation
o Questions and answer sessions	o Debate	o Brainstorming	o Simulation Activities	o Generating criteria for evaluation (brainstorming)	o Procuring an original plan	o Making evaluations of peer projects and presentations
o Workbooks or Worksheets	o Dramatization	o Problem-solving	o Role playing and Role Reversal	o Morphological Analysis/	o Defining the problem	o Evaluating data, given criteria to apply
o Programmed instruction	o Just Suppose	o Just Suppose	o Producing Newspaper stories, ads, etc.	o Checkerboard techniques	o Identifying goals and objectives	o Evaluating one's own products and ideas
o Games and Puzzles	o Peer Teaching	o Open-ended questions	o Model building	o Attribute Listing	o Organizing and conducting an original product	
o Information Search	o Morning Talk (Show/Tell)	o Paradoxes	o Interviewing	o Problem Identification	o Showing how some idea or product might be changed	
o Reading Assignments	o Small Group Projects	o Story completion or Picture Completion	o Class or group presentation	o Outlining Written material	o Finding new combinations	
o Drill and Practice	o Making Predictions or Estimates	o Idea Checklists	o Conducting Experiments	o Making Deductions		
o Finding Definitions	o Giving Examples	o Morphological Analysis	o Making up Classifications	o Comparing and Contrasting		
o Memory games or Quizzes	o Paraphrasing	o Forced Associations or Forced Relationships				
		o Unusual Titles				
		o Using analogy (synectics)				
		o Catalog Techniques				
		o Seeing Possible Causes, Consequences, Implications				

Adapted from Project Reach, Joyce Juntune

I. INGREDIENTS OF CURRICULUM DIFFERENTIATION

Content	Process			Product	Affect
Assumptions: -accepted K-12 curriculum -have subject outline & taxonomy -knowledge of K-12 Scope & Sequence -consensus of what is important to know, do, feel Modification of Content: -add on -extend -elaborate, more sophisticated -accelerate -greater depth -interdisciplinary -thematic -self selected by student	**Basic** o eliminate o reinforce o extend "Buy Time" - compact the curriculum* - testing out	**Research** o taking notes o outlining o card catalog o interview o survey o data retrieval systems o questionnaires o varied/multiple sources o experimental studies - historical - developmental - case o primary sources o secondary sources	**Thinking Skills** o Bloom's Taxonomy - abstract - complex o Critical - judge w/criteria - supportive evidence - diff. of opinion - fact vs. fiction - test assumptions - note ambiguities o Creative (CTS) - fluency/flexibility - originality/elaboration Scamper - substitute - combine - adapt - maximize/minimize - eliminate - rearrange o Problem Solving o Inquiry - define - hypothesize - collect/classify - select - validate - conclude o CPS - fact finding - problem finding - idea finding - solution finding - acceptance finding o Logic - relate/sequence - induce/deduce - conclude	o Variety of modes - visual - oral - kinesthetic - written o New techniques, materials, ideas o Opportunity to share with different audiences	o Nature of Giftedness/Talent o Relationship to others: gifted and non-gifted o Recognizing abilities o Self-directed - goals - steps - evaluate

* see definitions, p. 60.

Competitions Currently Available for Minnesota Students

Competitions	Grades	Coordinator Address and Phones
Arts		
1. Arts Recognition and Talent Search (ARTS) Scholarships	Seniors	National Foundation for Advancement in Arts, Dr. Grant Beglasian, 100 North Biscayne Boulevard, Miami, Florida, 33132 (305/371-8470)
2. Scholastic Arts Awards Program	Grades 9-12	Sheila Schmidt, Spring Lake Park Schools, 8000 Highway 65, Northeast, Minneapolis, MN 55432 (612/786-5570)
Miscellaneous		
1. Academic Decathalon Competition	11-12	Dave Stead, MSAD State Coordinator, 414 South Payne Street, New Ulm, MN 56073 National Tel: (714/966-4366)
2. All State Spelling Bee	Grades 5-8	Pamela Kren, Osseo. Contact local ECSU for information
3. Knowledge Bowl	Grades 9-12	Marilyn McGowan, Fegus Falls Public Schools, 600 Friberg Avenue, Fergus Falls, MN 56537 (612/463-7193)
4. Minnesota Talent Search ($11.50 registration fee covers cost of SAT testing)	Grades 7-9	Director Lorraine Hertz, Minnesota Department of Education, 661 Capitol Square, St. Paul, MN 55101 - (612/296-4072)
Problem Solving		
1. Alpha Problem Solving Program ($20.00 a team)	Junior High	H.E.D. Institute - James Hennager, Box 149, Volga, Iowa 52077
2. International Computer Problem Solving Contest ($10.00 registration fee)	4-6, 7-9, 10-12 divisions locally run	Dr. D.T. Piele, Box 2000, University of Wisconsin - Parkside - Kenosha, Wisconsin 53141
3. Minnesota Future Problem Solving Program (Training $45.00, evaluation $20.00/ team)	4-12	Paul and Lois Anderson, 16424 Temple Drive, Minnetonka, MN 55345 (612/938-1562)
4. Odyssey of the Mind	K-12	Jane Holmberg, Intermediate district #287, 1820 North Xenium Lane, Plymouth, MN 55441 - (612/553-5852)

BEST COPY AVAILABLE

Math		
1. **Continental Mathematics League**	Divisions 4-9 Calculus Computer 7-9 & 10-12	Continental Mathematics League, P.O. Box 306, Hauppauge, NY 11788
2. **MATHCOUNTS**	7-8	Michael Vance Rich, P.E., Suite 130, 555 Park Street, St. Paul, MN 55103 (Sponsored by Minnesota Society of Professional Engineers) (612/483-5608)
3. **Mathematic Olympiads ($50.00/team of up to 35 members)**	3-6	Math Olympiads for Elementary Schools, Forest Road School Valley Stream, NY 11582 - (516/791-2220)
4. **Minnesota High School Mathematics League**	High School	Wayne Roberts, Macalester College, 1600 Grand Avenue St. Paul, MN 55105 (612/696-6337)
Science		
1. **Science Challenge Awards Program Essay competition**	7, 8, 9 and 10, 11, 12	Curriculum Innovations, Inc. 3500 Western Avenue, Highland Park, Ill 60035 (312/432-2700) - Co-sponsored by National Science Teachers Association
2. Science Fairs	4-6, 7-9 10-12	State Director - Buzz Harrigan, MN Academy of Science (612/291-1630)
3. **Westinghouse Science Talent Search**	Seniors	Science Service, 1719 North Street Northwest, Washington, D.C. 20036 (202/785-2255)
Writing		
Achievement Awards in Writing	Juniors in 1985-86	National Council of Teachers of English, 1111 Kenyon Road, Urbana, Illinois 61801

EVALUATION RESULTS FROM A WELL-PLANNED PROGRAM

Comprehensive evaluation criteria will include most of the characteristics by which an appropriate program can be judged. The evaluation of a well-planned program will report that:

-- program objectives were clear, well formulated and appropriate.

-- inservice programs were provided to acquaint all staff with characteristics and problems of gifted students, special appropriate teaching strategies, and assessment procedures.

-- program consistency was exhibited by the agreement between the district's definition of gifted, and its selection of identification instruments and evaluation tools.

-- the program shows a planned sequential development of the child's gifted ability throughout his/her education, indicating a continuum of resources, services, and activities.

-- the program follows a process approach toward meeting a local need.

   a. Persons responsible for conducting the program plan have determined objectives, activities and program evaluation procedures.

   b. Future programs are based upon the results of the preceding programs.

   c. Programs which were effective in meeting an objective are continued.

   d. Programs which did not meet their objectives were altered, based on their results.

   e. The programs which appeared most effective were those which tried to follow an annual planning and evaluation process.

   f. The programs were appropriate for and were designed to meet the atypical needs, abilities, gifts, talents of the students identified and selected for the program.

   g. Funds budgeted were adequate to implement the planned program.

SAMPLE A

Discrepancy Evaluation Model

I. School District _____

II. Person Responsible _____

III. Description of Program: _____

_____

_____

_____

_____

Grade(s) _____ No. of Students: _____

IV. Objective to be Evaluated: _____

_____

_____

_____

_____

V. Evaluation Instrument to be Used: (commercial or locally developed)

_____

_____

_____

VI. Dates to be Administerd:

Pre _____

Post _____

VII. Plans for Analyzing Data: _____

_____

_____

_____

_____

Discrepancy Evaluation Form (page 2)

VIII. Discrepancies Noted in Program: _____

_____

_____

_____

_____

_____

IX. Recommended Program Revisions: _____

_____

_____

_____

_____

_____

This evaluation model was developed by the Director of Gifted Education for the Oregon State Department of Education in 1980 as a part of a mandate to conduct annual evaluations of programs for students with outstanding abilities. An important feature of this model is its focus on pinpointing aspects of the program which need revision.

SAMPLE B

RESOURCE PROJECT EVALUATION

Name_____ Grade_____

Teacher_____ School_____

Areas of Study:

___ Language Arts/ Humanities
___ Science
___ Personal and Social Development
___ Social Studies
___ Music
___ Other_____
___ Mathematics
___ Art
___ Other_____

Description of the Content of the Study_____

Objectives:

1._____

2._____

3._____

4._____

5._____

Activities:

Resources: **Product:**

Beginning Date: **Ending Date:** **Number of Hours:**

COGNITIVE OBJECTIVES: (Bloom's Taxonomy)	Average or Below	Above Average	Superior for Age Group
Lower Thought Processes			
1. Memory - The student recalls or recognizes information.			
2. Translation - The student changes information into a different symbolic form or language.			
3. Interpretation - The student discovers relationships among facts, generalizations, definitions, values and skills.			
Higher Thought Processes			
4. Application - The student solves a lifelike problem that requires the identification of the issue and the selection and use of appropriate generalizations and skills.			
5. Analysis - The student solves a problem in the light of conscious knowledge of the parts and forms of thinking.			
6. Synthesis - The student solves a problem that requires original, creative thinking.			
7. Evaluation - The student makes a judgement of good or bad, right or wrong, according to standards he designates.			
SOCIAL OBJECTIVES:			
1. Cooperative, giving and sharing behavior			
2. Independent, self-motivating behavior			
3. Respectful to other persons and property, (Peers and adults)			
CREATIVE OBJECTIVES:			
1. Imagination			
2. Uniqueness			
3. Variety of Ideas or Content			
4. Variety of Media			
5. Design			
6. Appreciation of Various Media			
7. Adaptability to Various Media			
8. Demonstrated Internalization of Assignment			
9. Other_____			

SAMPLE C

EVALUATION OF STUDENT PRODUCTS

Directions: Three judges will consider the work of a particular student in order to determine the overall excellence of the project (product). The project may be within any area of human endeavor (an art work, a written piece, a performance undertaken and presented in the class, a scientific or math project, etc.).

Each project will be considered in terms of the final product.

One form will be completed by each of the judges. However, even though each judge completes the form herself or himself, the three will discuss the project in terms of each student before completing the form. One judge will be the student's teacher (or project director); a second judge will have some expertise in the area within which the project may be classified (literature, science, art, etc.) and a third judge will be any person deemed to be appropriate by the project director. The teacher or project director will be chairperson of all of the groups of judges. Each of the quantifiable items on the scale (items 1-5) is worth a maximum of five points.

In the event the project is of a group nature (for example, if two or three students worked on a single science experiment and submitted one project collectively), the group should be considered as a single individual; i.e., each of the three judges should complete one form for the three students collectively.

In the case of this project objective relating to excellence, only the final product itself will be considered, not the processes leading up to it.

1. Briefly describe the product.

2. To what extent does the product represent an in-depth or superior handling of the subject?

5	4	3	2	1
to a great extent		somewhat		to a very limited extent

3. To what extent is this product of a "quality-level" beyond what one might expect of a student of this age?

5	4	3	2	1
to a great extent		somewhat		to a very limited extent

4. To what extent does the product indicate close attention to detail?

5	4	3	2	1
to a great extent		somewhat		to a very limited extent

Student Product (page 2)

5. To what extent is the central idea/conception of the product beyond what a student of this age might undertake?

5	4	3	2	1
to a great extent		somewhat		to a very limited extent

6. To what extent is the product of overal excellence?

5	4	3	2	1
to a great extent		somewhat		to a very limited extent

7. List some of the criteria you used in evaluating the excellence of this product.

SAMPLE D

PARENT EVALUATION OF A GIFTED PROGRAM

Directions to the Parent: As you undoubtedly know, your child has been a member of a special regional program for gifted students. We are anxious to determine the attitudes parents of the students have toward the program. Therefore, we have prepared the following set of questions which are designed to survey parental attitudes. We hope you will take a few minutes to fill out this form and return it to the indicated address.

Fifteen questions are listed. In the spaces provided to the right of the questions, you are asked to indicate the following:

Strongly Agree.....SA	Disagree.....D
Agree.....A	Strongly Disagree.....SD
Not Applicable..... NA	

Indicate only one check ( ) for each question. Please respond to each item.

Space is provided for you to comment on each question, if you care to do so. Also, two additional questions are asked which require a written response. We would appreciate it if you would take the time to respond to these questions as well.

	SA	A	NA	D	SD
1. This program helps meet the academic needs of my child. Comments:					
2. I feel that I understand the purpose of the program. Comments:					
3. This program has increased my child's self-confidence. Comments:					
4. This program has enlarged my child's friendships. Comments:					
5. I think this program should be continued. Comments:					

Parent Evaluation (page 2)

	SA	A	NA	D	SD
6. ~~I think~~ it is important to have my child work with children of similar academic ability. Comments:					
7. I am pleased that this program lets students of similar academic interests and abilities work together.					
8. I am pleased that this program uses my child's tested abilities in an area to develop in-depth academic experiences. Comments:					
9. I am pleased that my child is able to develop his/her strong ability area in this program. Comments:					
10. I am pleased that my child is exposed to areas of curriculum in which he/she hasn't worked before. Comments:					
11. I am pleased that this program tries to develop greater enthusiasm in my child for academic pursuits.					
12. I am pleased that my child is able to bypass (avoid) repetitious and inappropriate requirements. Comments:					

A. What has been the most beneficial thing that has happened to your child as a result of participating in this program?

B. What suggestions would you have for improving the program?

SAMPLE E

TEACHER EVALUATION OF RESEARCH SKILLS

Check what best indicates your feelings. Make only <u>one</u> check for each question.

	to a great extent (a)	somewhat (b)	to a very limited extent (c)
1. Did the student appropriately focus (narrow down, broaden, etc.) the topic being examined?			
2. Has the student used more than single source of information in gathering data for a product?			
3. Were the sources of information the student used appropriate for the topic?			
4. Did the student appropriately interpret and analyze the information gathered in making the final presentation?			
5. Has the student appropriately synthesized the data collected and presented it in a meaningful "whole"?			
6. Did the student present appropriate summary statements and generalizations of the information presented?			
7. Did the student seem to be self-motivated to plan and carry through the product?			
8. Did the completed product demonstrate the student's understanding of research skills?			
9. Did the student examine/consider/try out various approaches/ideas/alternatives in planning and carrying out the product to completion?			
10. Does the product as a whole indicate a high degree of originality and freshness for a student of this age?			

SAMPLE F

CLASSROOM TEACHER EVALUATION OF STUDENT

Student _____ Teacher _____ Date _____

Please evaluate the above student. Use the scale below to compare the student's present performance with the performance at the start of the program.

	Marked Increase 5	Increasing 4	About the Same 3	Diminishing 2	Marked loss 1	no opportunity to observe
- Ability to solve problems/critical thinking abilty						
- Knowledge of subject matter areas						
- Interest in school						
- Research skills						
- Ability to work independently						
- Status in peer group						
- Participation in class discussion						
- Rapport with teacher						
- Motivation to learn						
0. Knowledge of basic skills (fundamentals)						
1. Intellectual curiosity						
2. Ability to accept responsibility						
3. Opportunity to create and experiment with ideas and things.						
4. Self-understanding						
5. Acceptance of leadership roles						

Other Comments: _____

_____

_____

_____

SAMPLE G
STUDENT QUESTIONNAIRE

To children participating in the gifted program:

Child's Name_____

School_____

Gifted Program Enrolled In_____

1. What is the name of the special program you are in?_____

_____

2. How were you chosen for this program? (See the next page)_____

_____

3. How often does this class meet?

_____ Everyday
_____ Several times a week
_____ Once in a while

4. What do you do in this class that is different from your other classes?_____

_____

5. Tell what you especially like about this class?_____

_____

6. What would you change about this class if you could?_____

_____

7. What things do you do in this class that you would like to do in your other classes during the day?_____

_____

8. What things do you do in your other classes that you wish you could do in this class?_____

_____

9. Would you like this class to be continued next year?

Yes_____ No_____

Why?_____

Why not?_____

10. How do you think you were chosen for this program?

_____ Teacher invited me.

_____ I said I was interested in it.

_____ I can work well independently.

_____ I can read well.

_____ I'm one of the smartest people in my class.

_____ My name was drawn out of a hat.

_____ My parents wanted me to participate.

_____ I was in it last year.

_____ My whole class participates.

_____ I don't know.

SAMPLE H

Name_____

Class_____

Date_____

Community Service Project Form*

1. **Description of Project**

_____

_____

_____

_____

_____

2. **Reason for Choosing this Project:**

_____

_____

_____

_____

3. **Working Objectives** — **Completion Date**

(a)_____ _____

(b)_____ _____

(c)_____ _____

(d)_____ _____

(e)_____ _____

(f)_____ _____

4. **Resources**

(a)_____

(b)_____

(c)_____

(d)_____

*This form can be used for the Albert Schweitzer program or mentor programs.

Community Service Form (page 2)

5. **Checkpoint Dates**

   1. _____ 2. _____ 3. _____ 4. _____ 5. _____

6. **Method of Evaluation**

_____

_____

_____

Student _____ **Advisor** _____

Parent _____ **Mentor** _____

LH:S234a-c
01/06/85